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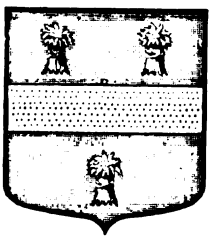

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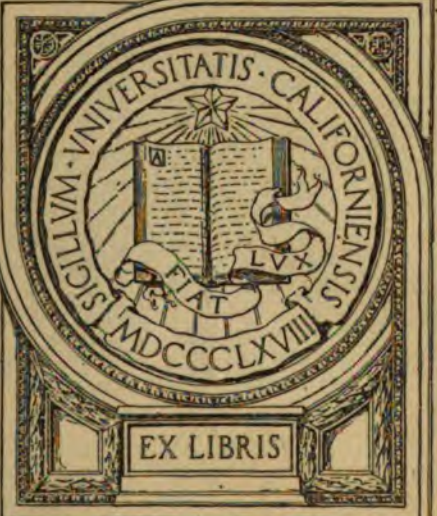

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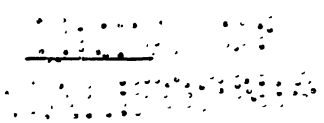

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MAN'L OF INF'N.

PUBLISHERS' PREFACE.

THE aim of this Manual is to present in accessible form facts and figures of general interest to teachers and scholars; to the man of affairs, the student and the people at large. It contains not one useless or superfluous sentence. The grain has been sifted from the chaff; the precious metal extracted from the ore. In it will be found terse answers to thousands of questions, the solution of which is a matter of daily need to busy men. The work is designed as a compendium of useful knowledge, of problems not covered by other books, or of information that, to seek out personally, would require the possession of many volumes. The ruling idea in its preparation has been to furnish in as few words as possible such data as would be of service to men of inquiring minds, to scholars and to their instructors. Matters of general interest, scattered through scores of reference books; and facts and figures from a hundred technical works are here collated and arranged in such a manner as to render the "Manual of Useful Information" a work of great intrinsic value to all classes of readers. Whether for the school, the home or the office; for the educator, the parent or the professional man, this volume will be found alike interesting and instructive.

It does not cover the entire domain of art and science, of literature and history, but the most important facts have been culled from the world's great storehouses of knowledge with much painstaking care, and these have been judiciously classified and systematically arranged so that it offers an epitome of general information at once accessible, accurate and needful—constituting an invaluable aid to the seeker of light. The work has involved the tillage of a wide field, and it is hoped that the garnered product may prove a serviceable contribution to the literature of our time.

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V.—**The Manual of Useful Information,** with an Introduction by F. A. Fitzpatrick, Superintendent Omaha City Schools contains more than 100,000 facts, figures and fancies drawn from every land and language, and carefully classified for the ready reference of the student, the teacher and the home circle. It is a compendium of the most important facts of general interest, and so arranged as to supply the teacher with more food for reflection, more subjects for discussion, more curious and helpful suggestions, and more general exercise material than was ever before published in such convenient and practical form.

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INTRODUCTION.

THE teacher, more than the member of any other profession, is expected to answer any question that may be propounded by the outside world. This requirement, added to the special technical knowledge needed to successfully impart instruction to the young, puts upon him a heavy burden.

The "Manual of Useful Information" places in the hands of the teacher a mass of information apparently indispensable to any well-informed man, and in such a shape as to be usable. The classification is admirable and of itself possesses great value. The terse, excellent English in which the information is clothed, adds a charm to the book.

In this age the attention of the best thought in education is directed to the unification of studies, relating each to the other in such a way as to unite the entire topics of school-life into a harmonious, complete whole.

One of the greatest difficulties in the way of accomplishing this work of unification has been the meager educational advantages available for the majority of teachers. The necessity which impels many to plunge into the practice of a profession before they have finished their studies, prevents the acquisition of power that would readily know the way to knowledge. Teachers have not known enough of the world, of history, of language, of literature, of the things which go to constitute that acquisition which the educated world calls culture.

Culture may be defined: "To know the best that has been said and done" in all time in such a way as to make the inheritance our own. To the majority of mankind information is a prerequisite of culture.

The information contained in this little Manual is the woof and warp of the more perfect fabric which is to be worked out from these foundations. The material presented has been most carefully selected with a view to assisting teachers to help themselves, and thus to pave the way toward helping their pupils.

In teaching history how useful it will be to the pupils to place on the blackboard day by day some selected topic from "Facts About Our Country."

The items of information contained in the chapter on "Time and Its Landmarks" are related to almost every day's work in geography and history.

The chapter on "Language; Its Use and Misuse," by calling attention to definite, specific points, will illustrate and intensify the generalizations of grammar, and enable the teacher to concentrate his efforts from time to time upon defects which might otherwise escape his attention.

The table of "Synonyms and Antonyms" cannot fail to be of immense value to any student or teacher of English. Pointing the way toward the obtaining of a large and plastic vocabulary, its study must surely tend in the direction of a nice appreciation and correct use of language.

Is it desirous to enliven the dreary monotony of a recitation in arithmetic, the chapter on "Mystic Numbers" will furnish both amusement and instruction.

Indeed, with this little volume the teacher may look out upon the world through each and all of twenty-two windows, gathering at a glance the rays of light which are reflected from the elevations which are illuminated and able, in a way, from the radiated light to get a glimpse of the valleys between the heights.

Equally valuable to the student or teacher, it is believed that a judicious use in the recitation of the information that may be found within these pages will increase the interest of the pupils and lead to better comprehension of the topics studied.

FRANK A. FITZPATRICK.

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FACTS ABOUT OUR COUNTRY.

Breathes there a man with soul so dead,
Who never to himself hath said—
This is my own—my native land!
—SCOTT.

POINTS OF PECULIAR INTEREST.

It was Thursday, July 4th, 1776!

The first Atlantic cable operated in 1858.

The first steamer crossed the Atlantic in 1819.

Leif Ericsson was the Columbus of the Northmen.

Gas was first used in the United States at Boston in 1822.

The battles of Bunker Hill and Lexington were fought, 1775.

San Salvador, or Guanahani, is now one of the Bahamas Islands.

The name America comes from the Florentine, Amerigo Vespucci.

The first theater in the United States was at Williamsburg, Va., 1752.

Watling Island is the British name for Columbus' first landing place.

The first iron ore discovered in this country was mined in Virginia in 1715.

The first American library was founded at Harvard College, Cambridge, 1638.

Sebastian Cabot was the first navigator to sight the territory of the now United States.

First cotton raised in the United States was in Virginia, in 1621; first exported, 1747.

The population of the original thirteen States at the first census in 1790, was 3,929,214.

St. Augustine, the oldest city in the United States was founded by the Spaniards in 1505.

Oberlin College, Ohio, was the first college in the United States to admit female students.

Jamestown, Va., founded 1607, was the first permanent English settlement in America.

The largest park in the United States is Fairmount, at Philadelphia, and contains 2,740 acres.

Guanahani was the native name of the first American island on which Columbus landed.

The first public schools in America were established in the New England States about 1642.

Modern investigation has shown that the Vikings visited America in the tenth and eleventh centuries.

Gaelic students claim that St. Brendan, an Irish monk, reached this continent in the sixth century.

The first telegraph in operation in America was between Washington and Baltimore, May 27, 1844.

The largest tree in the world is in Tulare county, California. It is 275 feet high and 106 feet in circumference at its base.

The first electrical signal ever transmitted between Europe and America passed over the Field submarine cable on August 5, 1858.

The present national colors of the United States were not adopted by Congress until 1777. The flag was first used by Washington at Cambridge, January 1, 1776.

Tobacco was discovered in San Domingo in 1496; afterwards by the Spaniards in Yucatan in 1520. It was introduced into France in 1560 and into England in 1583.

The part of United States territory most recently acquired is the island of San Juan, near Vancouver's Island. It was evacuated by England at the close of November, 1873.

The greatest cataract in the world is Niagara, the height of the American Falls being 165 feet. The highest fall of water in the world is that of the Yosemite in California, being 2,550 feet.

The first English settlement on the present territory of the United States was that made in Virginia by the English London Company in 1607. The Plymouth Company about the same time settled Massachusetts Bay.

The "copperhead" is a venomous serpent, closely allied to the rattlesnake and is found along our coast from New England to Florida. The term was applied by the Unionists to the peace party during the civil war, as suggesting insidious foes.

The largest producing farm in the world lies in the southwest corner of Louisiana, and is owned by a northern syndicate. It runs one hundred miles north and south. The immense tract is divided into convenient pastures, with stations of ranches every six miles. The fencing alone cost nearly $50,000.

The largest State in our grand republic is Texas, which contains 274,356 square miles, capable of sustaining 20,000,000 of people, and then it would not be more crowded than Scotland is at present. It has been estimated that the entire population of the globe could be seated upon chairs within the boundary of Texas and each have four feet of elbow room.

What have been called Secession Ordinances were passed by the following States: (1) South Carolina, Dec. 20, 1860; (2) Florida, Jan. 7, 1861; (3) Mississippi, Jan. 9, 1861; (4) Alabama, Jan. 11, 1861; (5) Georgia, Jan. 19, 1861; (6) Louisiana, Jan. 26, 1861; (7) Texas, Feb. 7, 1861; (8) Virginia, April 17, 1861; (9) Arkansas, May 6, 1861; (10) Tennessee, May 6, 1861; (11) North Carolina, May 20, 1861. The Civil War commenced April 13, 1861.

The historic term "Border States" was usually applied to Delaware, Maryland, Virginia, Kentucky, and Missouri. They were so called because they bordered upon the line of Free States and Slave-holding States. The term is now an anachronism.

The Whisky Insurrection occurred in Western Pennsylvania in the summer of 1794. It arose from discontent with the excise regulations, and culminated in open riot and the destruction of private property; but by the efforts of leading citizens the rising was quelled without the aid of the fifteen thousand troops which Washington promptly sent against the insurgents.

"Common Sense" is the title of a pamphlet published in 1776 by Thomas Paine, then living in Philadelphia, urging Americans to claim independence. It ridiculed the idea of a small island, 3,000 miles off, ruling the immense continent of America, and threatening three million men, more vigorous and more virtuous than their would-be enslavers. This spark was sufficient to arouse our forefathers, who at once signed their Declaration of Independence.

The largest body of fresh water in the world is Lake Superior. It is 400 miles long and 180 miles wide; its circumference, including the windings of its various bays, has been estimated at 1,800 miles. Its area in square miles is 32,000, which is greater than the whole of New England, leaving out Maine. The greatest depth of this inland sea is two hundred fathoms, or 1,200 feet. Its average depth is about one hundred and sixty fathoms. It is 636 feet above sea level.

Luray cavern, a cave, not large, but remarkable for the vast number and extraordinary shapes of its stalactites, is close to Luray village, Virginia (ninety miles from Richmond). Many of these wonderful columns exceed fifty feet in length; numbers of them are hollow, giving out bell-like notes when struck; and the colors range from waxy white to yellow, brown, or rosy red. The cavern, which is lit with the electric light, attracts thousands of visitors every year.

The origin of the term "Uncle Sam," a nickname for the United States government, is traced by some to the following story: Samuel Wilson, one of the inspectors of provisions in the War of Independence was called by his workmen and friends "Uncle Sam." Goods came into his hands one day consigned to one of the contractors named Elbert Anderson, and marked "E. A., U. S." These initials were construed by one of the hands, "Elbert Anderson and Uncle Sam." The joke has lived and "Uncle Sam" is now a synonym for the Republic itself.

Our country has the fastest war vessel in the world. The "New York" is a splendid example of an all-around warship, an unusual combination of great offensive and defensive power. On her recent trial trip she made the fastest time on record, 21.1 knots per hour. Her length on the water line is 380 feet 6½ inches, her breadth, moulded, 64 feet 10 inches, and her mean draft 23 feet 3½ inches. Her twin screw, vertical, triple expansion engines furnish an aggregate of 16,500 maximum indicated horse power. The main battery consists of six 8-inch and twelve rapid-firing 4-inch guns; her second battery of eight 6-pounder and four 1-pounder rapid-fire guns and four Gatlings. There are six above-water torpedo tubes; she has no sail power and carries two military masts with double fighting tops. Her armor is two to ten inches thick.

The American Bison is interesting as the only living species of the ox family indigenous to America, except the musk ox of the subarctic regions. It is commonly called buffalo by Americans, but must be distinguished from the true buffalo. The bison was within recent times very abundant in America, especially in the prairies beyond the Mississippi, and from 63° N. lat. to New Mexico. Now it is nearly extinct—a result of hard winters, cattle-ranching, railways and immigration.

The Sons of Liberty was an association of the colonists of North America, called into existence in 1765 by Lord Grenville's Stamp Act. The colonists combined to throw off allegiance to Great Britain and to make North America independent. The association began in New York and Connecticut. The term "Sons of Liberty" was suggested by a speech of Colonel Barré's. The "Daughters of Liberty" mutually bound themselves to drink no tea and wear no article of apparel imported from England while the import duties were unrepealed.

When the Southern States were practically disfranchised after the Civil War, there grew up swarms of adventurers who went down to that section and organized the negro voters, got elected to all the chief offices, plundered the state treasuries, contracted huge state debts, and stole the proceeds. Government in the South Carolina and Mississippi states was a mere caricature. When, in 1876, President Hayes refused the "carpet-baggers" the protection of Federal troops, the *régime* fell to pieces, and the rule fell again into the hands of the resident whites.

The Alien and Sedition Laws were passed by Congress June 25, 1798, empowering the President for two years to banish at his discretion the alien enemies of the Republic. This power was (July 6) enlarged by authorizing the President to apprehend and remove aliens. The Sedition Act, defining sedition, with heavy penalties for the offence, became law July 14. These statutes were principally directed against Frenchmen, when war between France and the United States seemed imminent. The laws were bitterly opposed as undemocratic and were repealed when Jefferson came into power.

What is called the affair of the "Trent," took place on November 8, 1861, when Captain Wilkes, of the Federal war steamer "San Jacinto," boarded the Royal British packet "Trent," and carried off Messrs. Mason and Slidell, Confederate commissioners and their secretaries, and conveyed them to Boston. There were great rejoicings in the Northern States, and the thanks of Congress were voted to Captain Wilkes (December 2); but the foreign envoys at Washington protested against his act, and a firm dispatch arrived from the British Government (December 18), in consequence of which Messrs. Mason and Slidell and their secretaries were released, and sailed for Europe (January 1, 1862).

The Danites, or "destroying angels," were a secret society founded by Joseph Smith in 1838, professedly merely for the defence of the Mormon sect against the mob. The members, originally some 300 in number, were bound by an oath, under penalty of death, to sustain the "first presidency" and one another in all things, whether right or wrong. They were divided into companies of fifties and tens, with suitable officers and a general over the whole; special "destruction companies" were appointed for the purpose of burning and destroying, at first by way of reprisal; but afterwards assassinations, to fulfil prophecies of Smith's, were laid to their charge.

Wilmot Proviso is the name given to an amendment to a bill appropriating $2,000,000 for the purchase of Mexican territory, moved (Aug. 8, 1846) in the United States Congress by Mr. David Wilmot, Democrat, in the following terms: "That, as an express and fundamental condition to the acquisition of any territory from the Republic of Mexico by the United States, neither slavery or involuntary servitude shall ever exist in any part of the said territory." This proviso, adopted by the House of Representatives, rejected by the Senate, became the starting point for the "Free-soil" movement of 1848.

"Pilgrim Fathers" is the name given to the one hundred and two Puritans who came to this country in 1620, in a ship called the "Mayflower," and colonized what are now the Northeastern States, called New England. This was the second English settlement in the New World, and was planted at New Plymouth, near Boston. The tyranny of the Ecclesiastical Commission in England raised up a host of dissenters, and in 1580 they chose John Robinson for their leader. Their independence soon drew upon them the heavy hand of the law, and they left the kingdom. The larger part settled at Leyden, in Holland, whence 102 of them came to America, and many others followed later.

The Capital of the United States has been located at different times at the following places: At Philadelphia from Sept. 5, 1774, to Dec., 1776; at Baltimore from Dec. 20, 1776, to March, 1777; at Philadelphia from March 4, 1777, to Sept., 1777; at Lancaster, Pa., from Sept. 27, 1777, to Sept. 30, 1777; at York, Pa., from Sept. 30, 1777, to July, 1778; at Philadelphia from July 2, 1778, to June 30, 1783; at Princeton, N. J., June 30, 1783, to Nov. 20, 1783; Annapolis, Md., Nov. 26, 1783, to Nov. 30, 1784; Trenton from Nov., 1784, to Jan., 1785; New York from Jan. 11, 1785, to 1790; then the seat of government was removed to Philadelphia, where it remained until 1800, since which time it has been in Washington.

The "Alabama Question" was raised in the winter of 1862–63, when Mr. Seward declared that the Union held itself entitled to demand full compensation for the damages inflicted on American property; and the divergence of view more than once threatened to issue in the gravest consequences to both nations. In 1871 a commission met at Washington; and by a treaty concluded there, provision was made for referring this claim to a tribunal composed of five arbitrators, of whom the Queen, the President of the United States, the King of Italy, the President of the Swiss Confederation, and the Emperor of Brazil, were each to appoint one. The tribunal met at Geneva in December, 1871, and by its final award Great Britain was ordered to pay a sum of $15,000,000; this sum covering also some responsibility for the depredations of the ships "Florida" and "Shenandoah." The claim for indirect damage to American commerce was dropped.

Vinland ("Wineland") is the name given to the chief settlement of the early Norsemen in North America. It is undoubtedly represented in modern times by a part of Massachusetts and Rhode Island. The first that saw it was Bjarne Herjulfson, who was driven thither by a storm in the summer of 986 A.D., when making a voyage from Iceland to Greenland, of which country his father, Herjulf, and Eric the Red were the earliest colonists. But Bjarne did not touch the land, which was first visited by Leif the Lucky, a son of Eric the Red, about 1000 A.D. One part of the country he named Helluland ("Stoneland"); another Markland ("Woodland"), the modern Newfoundland and Nova Scotia; a Ger-

man in his company having found the grape (most probably the *Vitis vulpina*) growing wild, as in his native country, Leif called the region Vinland. The natives from their dwarfish size they called *skraelings*. Two years afterward Leif's brother, Thorwald, came, and in the summer of 1003 led an expedition along the coast of New England southwards, but was killed the year following in an encounter with the natives. The most famous of the Norse explorers, however, was Thorfinn Karlsefne, an Icelander, who had married Gudrid, widow of Thorstein, a son of Eric the Red, and who in 1007 sailed from Greenland to Vinland with a crew of one hundred and sixty men, where he remained for three years, and then returned, after which no further attempts at colonization were made.

Pocahontas, daughter of the Indian chief, Powhatan, born about 1595, figures prominently in the travels of Captain John Smith, in connection with the part she played in the history of the early English colonists in Virginia. The expedition under Captain Bartholomew Gosnold and others had landed in Chesapeake Bay in 1607. The James River was explored, and a settlement formed, but a great drawback was the lack of food-supplies. In one of the expeditions for food, and to explore the Chickahominy, Smith was taken prisoner, brought before the chief Powhatan, and his head laid on a stone preparatory to having his brains beaten out with clubs. At this juncture, Pocahontas, then a young girl, "when no entreaty could prevail, got his head in her arms, and laid her own upon his to save him from death."

The stars and stripes of the United States of America are said to have been suggested by the coat armorial of the Washington family, but it is hardly possible to reconcile this supposition with the actual history of the American flag. The earliest flag consisted of horizontal stripes, with the earlier British union device in the place which it occupies in the British ensign. Soon after the Declaration of Independence congress resolved that the flag of the United States should have thirteen stripes, alternately red and white, and that the British union device should be superseded by a blue field with thirteen white stars, the number both of stripes and of stars being correspondent to the number of States. In 1808 it was enacted that the stripes should continue to be thirteen, that the stars should be twenty in number, there being then twenty States, and that a star should be added for every new State that came into the union.

Mammoth Cave, in Kentucky, is eighty-five miles by rail southwest of Louisville. The cave is about ten miles long; but it is said to require upwards of one hundred and fifty miles of traveling to explore its multitudinous avenues, chambers, grottoes, rivers and cataracts. The main cave is only four miles long, but it is from forty to three hundred feet wide, and rises in height to one hundred and twenty-five feet. Lucy's Dome is three hundred feet high, the loftiest of the many vertical shafts that pierce through all the levels. Some avenues are covered with a continuous incrustation of the most beautiful crystals; stalactites and stalagmites abound. There are several lakes or rivers connected with Green River outside the cave, rising with the river, but subsiding more slowly, so that they are generally impassable for more than six months in the year. The largest is Echo River, three-fourths of a mile long, and in some places two hundred feet wide. The air of the cave is pure and healthful; the temperature remains constant at about 54°.

The "Alabama" was a steamer built at Birkenhead, near Liverpool, England, by Messrs. Laird, for the Confederacy during the Civil War. In spite of the remonstrances of Mr. Adams, then United States minister to England, the "Alabama," then known as the "No. 290," was allowed to leave the Mersey. She obtained cannon and ammunition at the Azores, and hoisted the Confederate flag, with Captain (afterwards Admiral) Raphael Semmes in command. From this time, August, 1862, until June 19, 1864, when she was beaten and sunk in the English Channel by the United States warship "Kearsarge," the "Alabama" carried on a career of privateering, closely approximating to piracy. She preyed on the American merchant marine, capturing and sinking or burning over sixty vessels and destroying $4,000,000 worth of property. No attempt was made to take the prizes into port for condemnation, and until she met the "Kearsarge" the noted cruiser kept well out of the way of American war-ships.

In the United States, under the Pre-emption Act of 1841, an actual settler on the public lands enjoys the right, in preference to any one else, of purchasing at a fixed price the land on which he has settled, to the extent of not more than one hundred and sixty acres. In the case of "offered" lands the settler must file his "declaratory statement" within thirty days after entry, and within a year proof must be made of settlement and cultivation, and the land thereupon paid for, at $1.25 per acre if outside the limits of a railroad grant, or $2.50 if within such limits. If the tract settled on is "unoffered," an approved plan of the township must first be received at the district land office; the statement must then be filed within three months, and final proof and payment be made within thirty months thereafter. Title to land is thus obtained much sooner (possibly within six months) than under the homestead laws; but a homestead settler may at any time after six months purchase the land under the pre-emption laws; as, on the other hand, the holder of a pre-emption claim may convert it into a homestead.

HISTORIC MINOR POLITICAL PARTIES.

The minor American parties which have appeared and disappeared during our century and over of national life are the following: *Anti-Renters*, a New York party which flourished about 1841. They resisted the collection of back rents on the Van Rensselaer manor near Albany. They had strength enough to defeat Wright, the regular Democratic candidate for Governor of New York. *Barn-burners*, New York, 1846, seceders from the Democratic party. They were opposed to slavery extension. *Bucktails*, New York, about 1815; they supported Madison. *Conservatives*, New York and some other states, 1837; paper money Democrats. *Doughfaces*, 1820, Northern members of Congress, who voted in favor of the Missouri compromise. *Hunkers*, New York, a faction of the Democrats favoring the South, the Barn-burners being the other factor. *Know-Nothings*, New York, 1854, opposed to naturalization of foreigners unless they had been twenty-one years in the country. *Loco-Focos*, New York, 1835; a branch of the Democratic party. *Liberal Republicans*, 1872; Republicans who joined with the Democrats in support of Greeley for president. *Temperance*, or Prohibition, from 1830 down, in many States; in favor of preventing or restricting the sale of liquors. *Woman's Rights*, from 1860 down; those who favored granting to women the right of suffrage.

PASSENGER LIST OF THE MAYFLOWER.

The following is a complete list of the male passengers landed at Plymouth from the Mayflower:

Isaac Allerton.
Jno. Alden.
Jno. Allerton.
William Bradford.
William Brewster
John Billington.
Peter Brown.
Richard Britterage.
John Carver.
Francis Cook.
James Chilton.
John Crackston.
Richard Clarke.
Edward Dotey.
Francis Eaton.
Thomas English.
Samuel Fuller.
John Howland.
Stephen Hopkins.
Edward Leister.
Christopher Martin.
William Mullins.
Edmund Margeson.
Degony Priest.
Thomas Rogers.
John Rigdale.
Edward Fuller.
Moses Fletcher.
John Goodman.
Richard Gardiner.
George Soule.
Capt. Miles Standish.
Edward Tilly.
John Tilly.
Thomas Tinker.
John Turner.
Edward Winslow.
William White.
Richard Warren.
Thomas Williams.
Gilbert Winslow.

Servants as follows:

Carter.
Cooper.
Ely.
Holbeck.
Hooke.
Langmore.
Latham.
Minter.
More.
Power.
Sampson.
Story.
Thompson.
Trevore.
Wilder.

THE CLIMATES OF THE UNITED STATES.

Mean annual temperature, Fahrenheit, at places named:

Alabama	Mobile	66°	Mississippi	Jackson	64°
Alaska	Sitka	46	Missouri	St. Louis	55
Arizona	Tucson	69	Montana	Helena	43
Arkansas	Little Rock	63	Nebraska	Omaha	49
California	San Francisco	55	Nevada	C'p Winfield Scott	50
Colorado	Denver	48	New Hampshire	Concord	46
Connecticut	Hartford	50	New Jersey	Trenton	53
Dakota	Fort Randall	47	New Mexico	Santa Fe	51
Delaware	Wilmington	53	New York	Albany	48
District Columbia	Washington	55	North Carolina	Raleigh	59
Florida	Jacksonville	69	Ohio	Columbus	53
Georgia	Atlanta	58	Oregon	Portland	53
Idaho	Fort Boise	52	Pennsylvania	Harrisburg	54
Illinois	Springfield	50	Rhode Island	Providence	48
Indiana	Indianapolis	51	South Carolina	Columbia	62
Indian Territory	Fort Gibson	60	Tennessee	Nashville	58
Iowa	Des Moines	49	Texas	Austin	67
Kansas	Leavenworth	51	Utah	Salt Lake City	52
Kentucky	Louisville	56	Vermont	Montpelier	43
Louisiana	New Orleans	69	Virginia	Richmond	57
Maine	Augusta	45	Washington Ter	Steilacoom	51
Maryland	Baltimore	54	West Virginia	Romney	52
Massachusetts	Boston	48	Wisconsin	Madison	45
Michigan	Detroit	47	Wyoming	Fort Bridger	41
Minnesota	St. Paul	42			

HOW OUR COUNTRY GREW.

The following gives the area of our country, and when and how the territory was acquired:

	Square Miles.
Territory ceded by England in 1783	815,615
Louisiana acquired from France in 1803	930,988
Florida acquired from Spain in 1821	59,268
Texas admitted into the Union in 1845	237,504
Oregon, by treaty in 1846	280,425
California taken from Mexico in 1845	649,768
Arizona, from Mexico by treaty in 1854	27,500
Alaska, from Russia by treaty in 1867	577,390
Total square miles	3,578,398

OUR STATE AND TERRITORIAL CAPITALS.

Alabama, Montgomery; Arizona, Phœnix; Arkansas, Little Rock; California, Sacramento; Colorado, Denver; Connecticut, Hartford; North Dakota, Bismarck; South Dakota, Pierre; Delaware, Dover; Florida, Tallahassee; Georgia, Atlanta; Idaho, Boise City; Illinois, Springfield; Indiana, Indianapolis; Indian Territory, Tahlequah; Iowa, Des Moines; Kansas, Topeka; Kentucky, Frankfort; Louisiana, Baton Rouge; Maine, Augusta; Maryland, Annapolis; Massachusetts, Boston; Michigan, Lansing; Minnesota, St. Paul; Mississippi, Jackson; Missouri, Jefferson City; Montana, Helena; Nebraska, Lincoln; Nevada, Carson City; New Hampshire, Concord; New Jersey, Trenton; New Mexico Territory, Santa Fe; New York, Albany; North Carolina, Raleigh; Ohio, Columbus; Oregon, Salem; Pennsylvania, Harrisburg; Rhode Island, Newport and Providence; South Carolina, Columbia; Tennessee, Nashville; Texas, Austin; Utah Territory, Salt Lake City; Vermont, Montpelier; Virginia, Richmond; Washington, Olympia; West Virginia, Charleston; Wisconsin, Madison; Wyoming Territory, Cheyenne.

THE INCREASE OF POPULATION BY DECADES.

	Natural.	Immigration.	Total per cent.
1831-40	28.02	4.65	32.67
1841-50	26.19	9.68	35 87
1851-60	24.20	11 38	35.58
1861-70	15.38	7.25	22.63
1871-80	22.78	7.29	30 07

The increase of population since 1830 has averaged 32 per cent every 10 years. At this rate there would be eighty-eight millions in 1900. From 1880 to 1890 the increase was 24.87 per cent.

POPULATION AND AREA CENTER.

The center of area of the United States, excluding Alaska, is in Northern Kansas, in approximate latitude 39° 55′, and approximate longitude 98° 50′. The center of population is in latitude 39° 11′ 56″, and longitude 85° 32′ 53″, being about three-fourths of a degree south and more than seventeen degrees east of the center of area. The following table shows the movement of the center of population since 1790.

YEAR.	APPROXIMATE LOCATION.	MILES WEST'W'D.
1790	23 miles east of Baltimore, Md.	
1800	18 miles west of Baltimore, Md.	41
1810	40 miles N. W. by W. Washington, D. C	36
1820	16 miles north of Woodstock, Va	50
1830	19 miles W. S. W. Mooreville, W. Va.	39
1840	16 miles south of Clarksburg, W. Va.	55
1850	23 miles S. E. of Parkersburg, W. Va.	55
1860	20 miles south of Chillicothe, O.	81
1870	48 miles E. by N. of Cincinnati, O.	42
1880	8 miles W. by S. of Cincinnati, O.	58
1890	20 miles east of Columbus, Ind.	43

FIGURES OF NATIONAL IMPORTANCE.

The last census of the United States, taken in 1890, and the results of which were announced in 1891, shows that we have a population of 62,622,250. The census of 1880 counted 50,155,783, of whom 17,392,099 were earners.

The combined wealth of the country in 1880 amounted to over $50,-

000,000,000—about $880 per head, or $2,600 per worker. Half of this was in lands and houses. This half was made up of farms, $10,197,000,000; residence and business real estate, $9,881,000,000; public buildings, churches, etc., not taxed, $2,000,000,000. One-eighth was railroads ($5,536,000,000); another eighth, household furniture and supplies, ($5,000,000,000); the other quarter, live stock and farm tools, ($2,406,000,000); mines and quarries, ($781,000,000); telegraphs, ships and canals, ($419,000,000); specie, $(612,000,000); miscellaneous ($650,000,000); and the stock of products and imports, ($6,160,000,000).

The annual product or earnings of the nation are given by the census of 1880 as $8,500,000,000. One tenth of this is used on farms. The product is very unevenly divided. An even division would give about $450 per year to each earner, or less than 45 cents per day for each person. But it has been reckoned that in 1880 fifty persons had an average income of $1,000,000 each per year; 2,000, $100,000; 100,000, $10,000; a million, $1,000; 14,000,000 under $400 per year.

The chief wastes are as follows:

1. Drink. The "liquor bill" of this country, at the price paid dramshops, is estimated at from $474,000,000 up, of which a large part is worse than waste.

2. Fire. The loss by fire each year now exceeds $100,000,000, of which the $50,000,000 paid back by insurance companies is none the less loss. The expenses of insurance companies are $35,000,000 in addition, and for fire departments, $25,000,000 more.

3. Crime and pauperism. The census reported 59,255 criminals in jail, and 67,067 paupers in poor-houses. These are by no means all. Their support costs over $12,500,000 per year, but the full loss by crime runs probably toward fifty millions.

4. Waste of food. We consume now about $500,000,000 worth of food, of which probably 10 per cent is wasted by extravagance, bad cooking, etc.

5. Strikes and lack of employment. There were in one year (1880) 762 strikes recorded, of which 226 are known to have resulted in a loss of $3,700,000 unearned wages. Still greater is the loss by lack of employment for men willing to work.

WHERE ILLITERACY PREVAILS.

The United States compares very favorably with most of the European countries in the method of education. The preponderance of illiterates in the Southern States is largely owing to the presence of a dense colored population.

The 1880 census enumerates 36,761,607 persons of ten years of age and upward. Of this number 4,923,451, or 13.4 per cent., are returned as unable to read, and 6,239,958, or 17 per cent., as unable to write. The following States show over 40 per cent. of their population as unable to write. Alabama, 60; Florida, 43; Georgia, 50; Louisiana, 49; Mississippi, 50; New Mexico, 65; North Carolina, 48; South Carolina, 55, and Virginia, 41; and the following States with less than 5 per cent. unable to read: Connecticut, 4; Dakota, 3; Illinois, 4; Indiana, 5; Iowa, 2; Kansas, 4; Maine, 4; Michigan, 4; Minnesota, 4; Montana, 5; Nebraska, 2½; New Hampshire, 4; New Jersey, 5; New York, 4; Ohio, 4; Oregon, 4; Pennsylvania, 5; Utah, 5; Virginia, 5, and Wisconsin, 4.

ORIGIN OF STATE NAMES.

Alabama—Indian; meaning "Here we rest." *Arkansas*—"Kansas," the Indian name for "smoky water," with the French prefix "arc," bow or bend in the principal river. *California—Caliente Fornalla*, Spanish for "hot furnace," in allusion to the climate. *Colorado*—Spanish; meaning "colored," from the red color of the Colorado river. *Connecticut*—Indian; meaning "long river." *Delaware*—Named in honor of Lord Delaware. *Florida*—Named by Ponce de Leon, who discovered it in 1512, on Easter Day, the Spanish *Pascua de Flores*, or "Feast of Flowers," *Georgia*—In honor of George II. of England. *Illinois*—From the Indian "illini," men, and the French suffix "ois," together signifying "tribe of men." *Indiana*—Indian land. *Iowa*—Indian; meaning "beautiful land." *Kansas*—Indian; meaning "smoky water." *Kentucky*—Indian; for "at the head of the river;" or "the dark and bloody ground." *Louisiana*—In honor of Louis XIV. of France. *Maine*—From the province of Maine, in France. *Maryland*—In honor of Henrietta Maria, queen of Charles I. of England. *Massachusetts*—The place of the great hills (the blue hills southwest of Boston). *Michigan*—The Indian name for a fish weir. The lake was so called from the fancied resemblance of the lake to a fish trap. *Minnesota*—Indian; meaning "sky-tinted water." *Mississippi*—Indian; meaning "great father of waters." *Missouri*—Indian; meaning "muddy." *Nebraska*—Indian; meaning "water valley." *Nevada*—Spanish; meaning "snow-covered," alluding to the mountains. *New Hampshire*—From Hampshire county, England. *New Jersey*—In honor of Sir George Carteret, one of the original grantees, who had previously been governor of Jersey Island. *New York*—In honor of the Duke of York. *North* and *South Carolina*—Originally called Carolina, in honor of Charles IX. of France. *Ohio*—Indian; meaning "beautiful river. *Oregon*—From the Spanish "oregano," wild marjoram, which grows abundantly on the coast. *Pennsylvania*—Latin: meaning Penn's woody land. *Rhode Island*—From a fancied resemblance to the island of Rhodes in the Mediterranean. *Tennessee*—Indian, meaning "river with the great bend." *Texas*—Origin of this name is unknown. *Vermont*—French; meaning green mountain. *Virginia*—In honor of Elizabeth, the "Virgin Queen." *Wisconsin*—Indian; meaning "gathering of the waters," or "wild rushing channel."

MOTTOES OF THE STATES.

Arkansas—Regnant populi: The peoples rule. *California—Eureka:* I have found it. *Colorado—Nil sine numine:* Nothing without the Divinity. *Connecticut—Qui transtulit sustinet:* He who has transferred, sustains. *Delaware*—Liberty and Independence. *Florida:*—In God is our trust. *Georgia*—Wisdom, Justice, Moderation. *Illinois*—State Sovereignty and National Union. *Iowa*—Our liberties we prize, and our rights we will maintain. *Kansas—Ad astra per aspera:* To the stars through rugged ways. *Kentucky*—United we stand, divided we fall. *Louisiana*—Union and Confidence. *Maine—Dirigo:* I direct. *Maryland—Crescite et multiplicamini:* Increase and multiply. *Massachusetts Ense petit placidam sub libertate quietem:* By her sword she seeks under liberty a calm repose. *Michigan—Si quæris peninsulam amœnam circumspice:* If thou seekest a beautiful peninsula, look around. *Minnesota—L'Étoile du Nord:* The Star of the North. *Missouri—Salus populi suprema lex esto:* Let the welfare of the people be the supreme law.

Nebraska—Popular Sovereignty. *Nevada—Volens et potens:* Willing and able. *New Jersey*—Liberty and Independence. *New York—Excelsior:* Higher. *Ohio—Imperium in imperio:* An empire within an empire. *Oregon—Alis volat propriis:* She flies with her own wings. *Pennsylvania*—Virtue, Liberty, Independence. *Rhode Island*—Hope. *North Carolina—Esse quam videri:* To be, rather than to seem. *South Carolina—Animis opibusque parati:* Ready with our lives and property. *Tennessee*—Agriculture, Commerce. *Vermont*—Freedom and Unity. *Virginia—Sic semper tyrannis:* So be it ever to tyrants. *West Virginia —Montani semper liberi:* The mountaineers are always free. *Wisconsin* —Forward. *United States—E pluribus unum:* From many, one. *Annuit cæptis:* God has favored the undertaking; *Novus ordo seculorum:* A new order of ages. The first named on one side of the great seal, the other two on the reverse.

NICKNAMES OF STATES, CITIES AND PEOPLE.

Alabama, Cotton State; Arkansas, Toothpick and Bear State; California, Eureka and Golden State; Colorado, Centennial State; Connecticut, Land of Steady Habits, Freestone State and Nutmeg State; Dakota, Sioux State; Delaware, Uncle Sam's Pocket Handkerchief and Blue Hen State; Florida, Everglade and Flowery State; Georgia, Empire State of the South; Idaho, Gem of the Mountains; Illinois, Prairie and Sucker State; Indiana, Hoosier State; Iowa, Hawkeye State; Kansas, Jayhawker State; Kentucky, Corn-cracker State; Louisiana, Creole State; Maine, Timber and Pine Tree State; Maryland, Monumental State; Massachusetts, Old Bay State; Michigan, Wolverine and Peninsular State; Minnesota, Gopher and North Star State; Mississippi, Eagle State; Missouri, Puke State; Nebraska, Antelope State; Nevada, Sage State; New Hampshire, Old Granite State; New Jersey, Blue State and New Spain; New Mexico, Vermin State; New York, Empire State; North Carolina, Rip Van Winkle, Old North and Turpentine State; Ohio, Buckeye State; Oregon, Pacific State; Pennsylvania, Keystone, Iron and Oil State; Rhode Island, Plantation State and Little Rhody; South Carolina, Palmetto State; Tennessee, Lion's Den State; Texas, Lone Star State; Utah, Mormon State; Vermont, Green Mountain State; Virginia, Old Dominion; Wisconsin, Badger and Copper State.

Atlanta, Gate City of the South, Baltimore, Monumental City; Bangor, Lumber City; Boston, Modern Athens, Literary Emporium, City of Notions, and Hub of the Universe; Brooklyn, City of Churches; Buffalo, Queen of the Lakes; Burlington (Iowa) Orchard City; Charleston, Palmetto City; Chicago, Prairie, or Garden City; Cincinnati, Queen of the West and Porkopolis; Cleveland, Forest City; Denver, City of the Plains; Detroit, City of the Straits; Hartford, Insurance City; Indianapolis, Railroad City; Keokuk, Gate City; Lafayette, Star City; Leavenworth, Cottonwood City; Louisville, Falls City; Lowell, Spindle City; McGregor, Pocket City; Madison, Lake City; Milwaukee, Cream City; Nashville, Rock City; New Haven, Elm City; New Orleans, Crescent City; New York, Empire City, Commercial Emporium, Gotham, and Metropolis of America; Philadelphia, City of Brotherly Love, City of Penn, Quaker City, and Centennial City; Pittsburgh, Iron City and Smoky City; Portland (Me.), Hill City; Providence, Roger Williams' City, and Perry Davis's Pain Killer; Raleigh, Oak City; Richmond (Va.), Cockade City; Salt Lake City, Mormon City; San Francisco, Golden Gate; Savannah,

Forest City of the South, Sheboygan, Evergreen City; St. Louis, Mound City; St. Paul, North Star City; Vicksburg, Key City; Washington, City of Magnificent Distances, and Federal City.

Alabama, lizards; Arkansas, toothpicks; California, gold-hunters; Colorado, rovers; Connecticut, wooden nutmegs; Dakota, squatters; Delaware, muskrats; Florida, fly-up-the-creeks; Georgia, buzzards; Idaho, fortune-seekers; Illinois, suckers; Indiana, hoosiers; Iowa, hawkeyes; Kansas, jayhawkers; Kentucky, corn-crackers; Louisiana, creoles; Maine, foxes; Maryland, clam-humpers; Massachusetts, Yankees; Michigan, wolverines; Minnesota, gophers; Mississippi, tadpoles; Missouri, pukes; Nebraska, bugeaters; Nevada, sage-hens; New Hampshire, granite boys; New Jersey, blues, or clam-catchers; New Mexico, Spanish Indians; New York, Knickerbockers; North Carolina, tarheels; Ohio, buckeyes; Oregon, hard cases; Pennsylvania, pennamites, or leather-heads; Rhode Island, gunflints, South Carolina, weazles; Tennessee, whelps; Texas, beef-heads; Utah, polygamists; Vermont, green-mountain boys; Virginia, beagles; Wisconsin, badgers.

NOTED NATIONAL NICKNAMES.

Pupils in United States history and the general reader, who is at times puzled to know who is meant, will take interest in the following list:

The Father of his Country.	Washington.
Old Man Eloquent	J. Q. Adams.
The Sage of Monticello	Jefferson.
Old Hickory	Jackson.
Young Hickory	Polk.
Great Pacifier	Clay.
Mad Anthony	Wayne.
Old Rough and Ready	Taylor.
Expounder of the Constitution	Webster.
Unconditional Surrender Grant	U. S. Grant.
Poor Richard.	Franklin.
Political Meteor	Randolph.
Little Mac	McClellan.
Stonewall	T. J. Jackson.
Honest Abe	Lincoln.
Rock of Chickamauga	Thomas.
Old Put	Putnam.
Old Tecumseh	Sherman.
Light Horse Harry	Henry Lee.
Uncle Robert	R. E. Lee.
Fighting Joe	Hooker.
Bayard of the South	Marion.
The Little Magician	Van Buren.
Father of the Constitution.	James Madison
The Superb.	Hancock.
The Rail Splitter	Lincoln.
Great American Commoner.	Thad. Stevens.
Old Ossawatomie	John Brown.
Old Public Functionary	Jas. Buchanan.
Carolina Game Cock	Sumter.
Teacher President	Garfield.
Father of Greenbacks	Salm'n P Chase
Little Giant	S. A. Douglas.
Colossus of American Independence	John Adams.
Sage of Chappaqua	Greeley.
Prince of American Letters	W. Irving.
Mill Boy of the Slashes	Clay.
Pathfinder of the Rockies.	Fremont.
Cincinnatus of the West	Washington.
Great Indian Apostle	Eliot.
Motoax	King Phillip

WONDERS OF AMERICAN RAILROADING.

1. There are in the United States 150,600 miles of railway—about half the mileage of the world. 2. The estimated cost is $9,000,000,000. 3. The number of people employed by American railways is more than 1,000,000. 4. The fastest time made by a train is 422 6-10 miles in 7 hours, 23 minutes (443 minutes), one mile being made in 47 11-29 seconds, on the West Shore Railroad, New York. 5. The cost of a high-class eight-wheel passenger locomotive is $8,500. 6. The longest mileage operated by a single system is about 8,000 miles. 7. The cost of a palace sleeping car is about $15,000 or $17,000 if "vestibuled." 8. The longest railway bridge span in the United States is the Cantilever span in Poughkeepsie bridge—548 feet. 9. The highest railroad bridge in the United States is the Kinzua viaduct on the Erie road—305 feet high. 10.

The first locomotive in the United States was built by Peter Cooper. 11. The road carrying the largest number of passengers is the Manhattan Elevated Railroad, New York—525,000 a day, or 191,625,000 yearly. 12. The average daily earning of an American locomotive is about $100. 13. The longest American railway tunnel is the Hoosac, on the Fitchburg railway—4¼ miles. 14. The average cost of constructing a mile of railroad at the present time is about $30,000. 15. The first sleeping-car was used upon the Cumberland Valley Railroad of Pennsylvania; from 1836 to 1848. 16. The chances of fatal accident in railway travel are very slight—one killed in ten million. Statistics show more are killed by falling out of windows than in railway accidents. 17. The line of railway extending farthest east and west is the Canadian Pacific, running from Quebec to the Pacific Ocean. 18. A steel rail, with average wear, lasts about eighteen years. 19. The road carrying the largest number of commuters is the Illinois Central at Chicago—4,828,128 commutation fares in 1887. 20. The fastest time made between Jersey City and San Francisco is 3 days, 7 hours, 39 minutes and 16 seconds. Special theatrical train, June, 1876.

NOTE.—Twenty-hour regular train service was established between New York and Chicago, May 28, 1893. Average speed throughout, 51 miles.

OUR COAL FIELDS.

This country has an area of between three and four hundred thousand square miles of known coal fields, from which one million tons are mined yearly—enough to belt the earth at the equator with a ring five and a half feet thick by five and a half feet wide. The quantity "in sight" is estimated to be sufficient to supply the whole world for a period of fifteen hundred to two thousand years.

IMMIGRATION INTO THE UNITED STATES, 1820-1892.

YEAR.	Total Alien Passengers.	YEAR.	Total Alien Passengers.	YEAR.	Total Immigrants.	YEAR.	Total Immigrants.
1820	8,385	1840	84,066	1860	150,237	1879	177,826
1821	9,127	1841	80,289	1861	89,724	1880	457,257
1822	6,911	1842	104,565	1862	89,007	1881	669 431
1823	6,354	1843	52,496	1863	174,594	1882	788,992
1824	7,912	1844	78,615	1864	193,195	1883	603,322
1825	10,199	1845	114,371	1865	247,453	1884	518,592
1826	10,837	1846	154,416	1866	163,594	1885	395,346
1827	18 875	1847	234,968	Fisc.Y'r end'g Jun. 30		1886	334,203
1828	27,382	1848	226,527	1867	298,967	1887	490,109
1829	22,520	1849	297,024	1868	282,189	1888	546,889
1830	23,322	1850	369,986	1869	352,569	1889	444,427
1831	22,633	1851	379,466	1870	387,203	1890	455,302
1832	60,482	1852	371,603	1871	321,350	891	560,319
1833	58 640	1853	368,645	1872	404,806	1892	623,084
1834	65,365	1854	427,833	1873	459,803		
1835	45,374	1855	200.877	1874	313,339	Total	*16,004,093
1836	76,242	1856	195,857	1875	227,498		
1837	79,340	1857	246.945	1876	169,986	From 1779 to 1820,	
1838	38,914	1858	119,501	1877	141,857	estimated	250,000
1839	68,069	1859	118,616	1878	138,469		

* Immigrants from the British North American possessions and Mexico are not included since July 1, 1885.

Of the whole number of immigrants in the fiscal year ending June 30, 1891, 533,164 came through the customs district of New York; 41,-

995 through Baltimore; 36,149 through Boston; 28,120 through Philadelphia, and 10,115 through San Francisco.

The reported occupations of immigrants who arrived during the year ending June 30, 1890, were as follows: Laborers, 139,365; farmers, 29,296; servants, 28,625; carpenters, 3,776; miners, 3,745; clerks, 3,653; tailors, 3,879; shoemakers, 2,232; blacksmiths, 1,792. The total number of professional immigrants was 3,236; of skilled laborers, 44,540; of miscellaneous, 211,756.

NATIONALITY OF IMMIGRANTS DURING FORTY YEARS.

(Compiled by the Superintendent of the Census.)

COUNTRIES.	1851 to 1860.	1861 to 1870.	1871 to 1880.	1881 to 1890.
England	247,125	251,288	440,961	649,052
Ireland	914,119	456,593	444,589	655,381
Scotland	88,331	44,681	88 925	149,856
Wales	6,319	4,642	6,779	11,990
Great Britain, not specified	132,199	349,766	7,908	147
Total United Kingdom	1,338,093	1,106,970	989,163	1,466,426
Austria	.....	9,398	69,558	226,020
Belgium	4,738	7,416	7,278	17,506
Denmark	3,749	17,885	34,577	88,108
France	76,358	37,749	73,301	50,460
Germany	951,667	822,007	757,698	1,452,952
Hungary	.....	448	13,475	127.678
Italy	9,231	12,892	60,830	307,095
Netherlands	10,789	9,539	17,236	53.701
Norway and Sweden	20,931	117,796	226,488	560,483
Russia and Poland	1.621	5,047	54,606	265,064
Spain and Portugal	10,353	9,047	9,767	5.564
Switzerland	25,011	23,839	31,722	81,987
All other countries in Europe	116	234	1,265	22,770
Total Europe	2,452,657	2,180,399	2,346,964	4,725,814
China	41,397	68,059	122.436	59,995*
Total Asia	41,458	68,444	123,068	63,932
Africa	210	324	221	375*
Canada	59,309	184,713	430,910	392,802†
Mexico	3,078	2,386	5,164	1,913†
Central America	449	96	229	1,646
South America	1,224	1,443	1,152	
West Indies	10,660	9,698	14,461	26,487*‡
Total America	74,720	198,336	451,216	422,848
All other countries	29,169	19,249	23,226	25,759
Aggregate	2,598.214	2,466,752	2,944,695	5,238,728

*Not given in 1890. †Reports discontinued after 1885. ‡Includes Central and South America for 1889.

As the reports for British North American Provinces and for Mexico have been discontinued since 1885 by the Treasury Department, the figures here represented only cover five years of the decade. An estimate based upon the immigration of the years from 1881 to 1885, inclusive, would give 785,604 to British North America for the decade from 1881 to 1890, and 3,826 to Mexico, making the aggregate for America 817,563, instead of 422,848.

Mulhall estimates the number of individuals who emigrated from Europe in 72 years, 1816 to 1888, at 27,205,000. Of these 15,000,000 came to the United States.

GROWTH OF OUR FIFTY CHIEF CITIES.

Rank.	Cities.	Population, 1890	Rank.	Population, 1880	Rank.	Cities.	Population, 1890	Rank.	Population, 1880
1	New York	1,513,501	1	1,206,209	26	Indianapolis	107,445	24	75,056
2	Chicago	1,098,576	4	503,185	27	Denver	106,670	49	35,629
3	Philadelphia	1,044,894	2	847,170	28	Allegheny	104,967	23	78,682
4	Brooklyn	806,343	3	566,663	29	Albany	94,640	21	90,758
5	St. Louis	450,245	6	350,518	30	Columbus	90,398	33	51,647
6	Boston	446,507	5	362,839	31	Syracuse	88,387	32	51,792
7	Baltimore	434,151	7	332,313	32	Worcester	84,536	28	58,291
8	San Francisco	297,990	9	233,959	33	Scranton	83,450	39	45,850
9	Cincinnati	296 309	8	255,139	34	Toledo	82,652	35	50,137
10	Cleveland	261,546	11	160,146	35	New Haven	81,451	26	62,882
11	Buffalo	254,457	13	155,134	36	Richmond	80,838	25	63,600
12	New Orleans	241,995	10	216,090	37	Paterson	78,358	34	51,031
13	Pittsburg	238,473	12	156,389	38	Lowell	77,605	27	59,475
14	Washington	229,796	14	147,293	39	Nashville	76,309	40	43,350
15	Detroit	205,669	18	116,340	40	Fall River	74,351	37	48,961
16	Milwaukee	203,979	19	115,587	41	Cambridge	69,837	31	52,669
17	Newark	181,518	15	136,508	42	Atlanta	65,514	48	37,409
18	Minneapolis	164,738	38	46,887	43	Memphis	64,586	54	33,592
19	Jersey City	163,987	17	120,722	44	Grand Rapids	64,147	58	32,016
20	Louisville	161,005	16	123,758	45	Wilmington	61,437	42	42,478
21	Omaha	139,526	63	30,518	46	Troy	60,605	29	56,747
22	Rochester	138,327	22	89,366	47	Reading	58,926	41	43,278
23	St. Paul	133,156	45	41,473	48	Dayton	58,838	47	38,678
24	Kansas City	132,416	30	55,785	49	Trenton	58,488	64	29,910
25	Providence	132,043	20	104,857	50	Camden	58,274	44	41,659
						Totals	11,286,500		7,750,715

THE SUCCESSION OF THE PRESIDENTS.

Name.	Native State.	Ancestry.	Residence.	Inaugurated		Politics.	Place of Death.
				Year.	Age.		
George Washington	Va	English	Va	1789	57	Fed	Mount Vernon, 1799.
John Adams	Mass.	English	Mass.	1797	62	Fed	Quincy, Mass., 1826.
Thomas Jefferson	Va	Welsh	Va	1801	58	Rep	Monticello, Va., 1826.
James Madison	Va	English	Va	1809	58	Rep	Montpelier, Va., 1836.
James Monroe	Va	Scotch	Va	1817	59	Rep	New York City, 1831.
John Quincy Adams	Mass.	English	Mass.	1825	58	Rep	Washington, 1848.
Andrew Jackson	S. C.	Scot-Irish	Tenn	1829	62	Dem	Hermitage, Tenn., '45.
Martin Van Buren	N. Y.	Dutch	N. Y.	1837	55	Dem	Kinderbook, N.Y., '62.
William H. Harrison	Va	English	Ohio.	1841	58	Whig	Washington, 1841.
John Tyler	Va.	English	Va.	1841	51	Dem	Richmond, Va., 1862.
James K. Polk	N.C.	Scot-Irish	Tenn	1845	60	Dem	Nashville, Tenn., 1849.
Zachary Taylor	Va	English	La.	1849	55	Whig	Washington, 1850.
Millard Fillmore	N. Y.	English	N. Y.	1850	50	Whig	Buffalo, N. Y., 1876.
Franklin Pierce	N. H.	English	N. H.	1853	49	Dem	Concord, N. H., 1869.
James Buchanan	Pa	Scot-Irish	Pa.	1857	60	Dem	Wheatland, Pa., 1868.
Abraham Lincoln	Ky	English	Ill.	1861	52	Rep	Washington, 1865.
Andrew Johnson	N. C.	English	Tenn	1865	57	Rep	Greenville, Tenn., '75.
Ulysses S. Grant	Ohio.	Scotch	Ill.	1869	47	Rep	Mt M'Gregor, N.Y., '85.
Rutherford B. Hayes	Ohio.	English	Ohio.	1877	55	Rep	Cleveland, O., 1893.
James A. Garfield	Ohio.	English	Ohio.	1881	49	Rep	Long Branch, 1881.
Chester A. Arthur	Vt.	Scot-Irish	N. Y.	1881	51	Rep	New York City, 1886.
Grover Cleveland	N. J.	English	N. Y.	1885	48	Dem	.....
Benjamin Harrison	Ohio.	English	Ind.	1889	56	Rep	.....
Grover Cleveland	N J.	English	N. Y.	1893	56	Dem	.....

GENERALS COMMANDING THE U. S. ARMY.

	FROM	TO		FROM	TO
George Washington	1775	1783	Alexander Macomb	1828	1841
Henry Knox	1783	1784	Winfield Scott	1841	1861
Josiah Harmer	1788	1791	George B. McClellan	1861	1862
Arthur St. Clair	1791	1796	Henry W. Halleck	1862	1864
James Wilkinson	1796	1798	Ulysses S. Grant	1864	1869
George Washington	1799	1799	William T. Sherman	1869	1883
James Wilkinson	1800	1812	Philip H. Sheridan	1883	1888
Henry Dearborn	1812	1815	John M. Schofield	1888	.....
Jacob Brown	1815	1828			

WARS OF THE UNITED STATES.

Statement of the Number of United States Troops Engaged.

WARS.	FROM.	TO.	REGULARS.	MILITIA AND VOLUNTEERS.	TOTAL.
War of the Revolution	Apr. 17,1775	Apr. 11,1783	130,711	164,080	309,781
Northwestern Indian wars	Sept.19,1790	Aug. 3,1793	.....	.....	8,983
War with France	July 9,1798	Sept 30,1800	.....	.....	*4,593
War with Tripoli	June 10 1801	June 4,1805	.....	.....	*3,330
Creek Indian war	July 27,1813	Aug. 9,1814	600	13,131	13,731
War 1812 with Great Britian	June 18,1812	Feb. 17,1815	85,000	471.622	576,622
Seminole Indian war	Nov. 20,1817	Oct. 21,1818	1,000	6.911	7,911
Black Hawk Indian war	Apr. 21,1831	Sept 31.1832	1,339	5.126	6,465
Cherokee disturbance or removal.	1836	1837	.....	9,494	9,494
Creek Indian war or disturbance.	May 5, 1836	Sept 30,1837	935	12.483	13,418
Florida Indian war	Dec. 23,1835	Aug.14,1843	11,169	29,953	41,122
Aroostook disturbance	1838	1839	.....	1,500	1,500
War with Mexico	Apr. 14,1846	July 4,1848	30,964	73,776	112,230
Apache, Navajo and Utah war	1849	1855	1,500	1,061	2,561
Seminole Indian war	1856	1858	.....	3,667	2,667
Civil war†	1861	1865	.....	.....	2,772,408

*Naval forces engaged. †The number of troops on the Confederate side was about 600,000.

The number of casualities in the volunteer and regular armies in the United States, during the war of 1861-65, was reported by the Provost Marshal General in 1866: Killed in battle, 61,362; died of wounds, 34,727; died of disease, 183,287; total died, 279,376; total deserted, 199,105. Number of soldiers in the Confederate service who died of wounds or disease (partial statement), 133,821. Deserted (partial statement, 104,428. Number of United States troops captured during the war, 212,608; Confederate troops captured, 476,169. Number of United States troops paroled on the field, 16,431; Confederate troops paroled on the field, 248,599. Number of United States troops who died while prisoners, 29,725; Confederate troops who died while prisoners, 26,774.

GUIDE TO THE CIVIL SERVICE.

The officials and clerks—over one hundred and twenty thousand in all—by whom the people's business in the administration of government is carried on, constitute the Civil Service. About five thousand of these are appointed by the President, alone or with the consent of the Senate; about fifteen thousand under what is known as the "Civil Service Rules;" but the great body of officeholders is appointed by heads of departments.

Those employed in the civil service have always been theoretically

entitled to serve "during good behavior," but practically, until within a few years, their positions have depended upon their allegiance to the political party in power.

In 1883 Congress passed a law for the improvement of the civil service of the United States. This act provides for the appointment by the President of three commissioners to have general charge of filling the vacancies in the civil service department, and stipulates that the fitness of all applicants for all subordinate positions in the departments at Washington, and in all custom-houses and postoffices having as many as 50 officeholders, shall be tested by examinations, and the positions assigned with reference to the capacity, education and character of the applicants, regardless of political preferences.

According to this, no absolute appointment to office can be made until the applicant has proven his or her ability to fill the position satisfactorily by six months' service; no person habitually using intoxicating beverages to excess shall be appointed to, or retained in any office; no recommendation which may be given by any Senator or member of the House of Representatives, except as to character and residence, shall be considered by the examiners; men and women shall receive the same pay for the same work.

The general competitive examinations for admission to the service are limited to the following subjects: 1. Orthography, penmanship and copying. 2. Arithmetic—fundamental rules, fractions and percentage. 3. Interest, discount, and the elements of bookkeeping and of accounts. 4. Elements of the English language, letter writing, and the proper construction of sentences. 5. Elements of the geography, history and government of the United States.

A standing of 65 per cent. in the first three branches is necessary to qualify an applicant for appointment. Where special qualifications are necessary for specific work the examinations are adapted to test the knowledge of the applicant in that particular line.

No applicant will be examined who cannot furnish proof that he is of good moral character and in good health.

There is a board of examiners in each of the principal cities of the United States and several examinations are held each year. Applications must be made on the regular "application paper," which can be obtained of the commissioners, or any board of examiners.

Several of the States have adopted the principles laid down in the civil service act and applied them to the State civil service, and it is probably only a question of time when civil service reform will be consummated throughout the United States and the public service will thereby be rendered much more efficient.

GOVERNMENT SALARY LIST.

The salary of the President of the United States is $50,000 a year, the Vice-President, $8,000; Cabinet officers, $8,000. Senators receive $5,000 and mileage. Congressmen, $5,000 and mileage. The Chief Justice of the Supreme Court receives $10,500; Associate Justices, $10,000. The diplomats get good pay; Ministers to Germany, Great Britain, France and Russia, $17,500; Ministers to Brazil, China, Austra-Hungary, Italy, Mexico, Japan and Spain, $12,000; Ministers to Chili, Peru and Central America, $10,000; Ministers to Argentine Confederation, Hawaiian Islands, Belgium, Hayti, Colombia, Netherlands, Sweden, Turkey and

Venezuela, $7,500, Ministers to Switzerland, Denmark, Paraguay, Bolivia and Portugal, $5,000; Ministers to Liberia, $4,000. The heads of the Government departments receive: Superintendent of Bureau of Engraving and Printing, $4,500; Public Printer, $4,500; Superintendent of Census, $5,000; Superintendent of Naval Observatory, $5,000; Superintendent of the Signal Service, $4,000; Director of Geological Surveys, $6,000; Director of the Mint, $4,500; Commissioner of General Land Office, $4,000; Commissioner of Pensions, $3,600, Commissioner of Agriculture, $3,000; Commissioner of Indian Affairs, $3,000; Commissioner of Education, $3,000; Commander of Marine Corps, $3,500; Superintendent of Coast and Geodetic Survey, $6,000.

In 1893 the Ministers to Great Britain, Germany and France, were made Ambassadors without increase of pay.

The pay of army officers is fixed as follows: General, $13,500; Lieut.-General, $11,000; Major-General, $7,500; Brigadier-General, $5,500; Colonel, $3,500; Lieutenant-Colonel, $3,000; Major, $2,500; Captain, mounted, $2,000; Captain, not mounted, $1,800; Regimental Adjutant, $1,800; Regimental Quartermaster, $1,800; 1st Lieutenant, mounted, $1,600; 1st Lieutenant, not mounted, $1,500; 2d Lieutenant, mounted, $1,500; 2d Lieutenant, not mounted, $1,400; Chaplain, $1,500. The navy salaries are: Admiral, $13,000; Vice-Admiral, $9,000; Rear-Admiral, $6,000; Commodore, $5,000; Captain, $4,500; Commander, $3,500; Lieut.-Commander, $2,800; Lieutenant, $2,400; Master, $1,800; Ensign, $1,200; Midshipman, $1,000; Cadet Midshipman, $500; Mate, $900; Medical and Pay Director and Medical and Pay Inspector and Chief Engineer, $4,400; Fleet Surgeon, Fleet Paymaster and Fleet Engineer, $4,400; Surgeon and Paymaster, $2,800; Chaplain, $2,500.

WAYS AND WORK OF THE PATENT OFFICE.

Applications for United States patents must be addressed to the Commissioner of Patents, Washington, D.C., and signed and sworn to by the inventor. The invention must not have been in public use or on sale for more than two years prior to the application. The applicant must fully describe his invention and distinctly claim those parts which he believes to be new. The application must be illustrated with drawings when possible. When filed, a first fee of $15 is payable, and a second fee of $20 is exacted if the application is allowed before the patent will be issued. The patent runs seventeen years from date of issue. Extensions can be obtained only by special act of Congress. A pamphlet of rules and forms is distributed free by the Commissioner of Patents. Suits to enjoin infringement of letters patent are brought by bill in equity in U. S. District or Circuit courts. The profits realized by an infringer can also be recovered.

The total number of United States Patents granted up to and including Oct. 25, 1892, was 485,158. The average issue is about 25,000 a year. The average number of applications for patents is 40,000 a year. Since 1881, the annual receipts of the Patent Office have exceeded $1,000,000. The figures for fiscal year ending June 30, 1892, were $1,268,727.35. The expenditures for the same year were $1,114,134.23. The total balance to the credit of the Patent Fund in the United States Treasury on June 30, 1892, was $4,102,441.00. The two main items of expense are salaries, about $650,000, and printing and photo-lithographing, about $400,000 annually. The Patent Office Library contains 60,000 volumes. The model hall has 154,000 models. The office does not require models now, except in special cases.

UNITED STATES LAND MEASURE AND HOMESTEAD LAW.

A township is thirty-six sections, each a mile square. A section is six hundred and forty acres. A quarter section, half a mile square, is one hundred and sixty acres. An eighth section, half a mile long, north and south, and a quarter of a mile wide, is eighty acres. A sixteenth section, a quarter of a mile square, is forty acres.

The sections are all numbered 1 to 36, commencing at northeast corner, thus:

6	5	4	3	2	NWNE SW SE
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

The sections are all divided in quarters, which are named by the cardinal points, as in section 1. The quarters are divided in the same way, as shown in the smaller diagram. The description of a forty-acre lot would read: The south half of the west half of the south-west quarter of section 1 in township 24, north of range 7 west, or as the case might be; and sometimes will fall short and sometimes overrun the number of acres it is supposed to contain.

NW NW	NE NW	NW NE	NE NE
SW NW	SE NW	SW NE	SE NE
NW SW	NE SW	NW SE	NE SE
SW SW	SE SW	SW SE	SE SE

ALIEN HOLDERS OF OUR LANDS.

The following is a table of the leading alien holders of lands in the United States, with amount of holdings in acres:

An English syndicate, No. 3, in Texas	3,000,000
The Holland Land Company, New Mexico	4,500,000
Sir Edw. Reid and a syndicate, Florida	2,000,000
English syndicate in Mississippi	1,800,000
Marquis of Tweedale	1,750,000
Phillips, Marshall & Co., London	1,300,000
German-American syndicate, London	750,000
Bryan H. Evans, of London	700,000
Duke of Sutherland	425,000
British Land Company in Kansas	320,000
Wm. Wharley, M.P., Peterboro, England	310,000
Missouri Land Company, Edinburgh, Scotland	300,000
Robert Tennent, of London	230,000
Dundee Land Company, Scotland	247,000
Lord Dunmore	120,000
Benjamin Neugas, Liverpool	100,000
Lord Houghton in Florida	60,000
Lord Dunraven in Colorado	60,000
English Land Company in Florida	50,000
English Land Company in Arkansas	50,000
Albert Peel, M.P., Leicestershire, England	10,000
Sir J. L. Kay, Yorkshire, England	5,000
Alexander Grant, of London, in Kansas	35,000
English syndicate, Wisconsin	110,000
M. Ellerhauser, of Halifax, in W. Va.	600,000
A Scotch syndicate in Florida	500,000
A. Boysen, Danish consul in Milwaukee	50,000
Missouri Land Company, of Edinburgh	165,000
Total	20,647,000

To these syndicate holdings should be added the following: The Arkansas Valley Company in Colorado, a foreign corporation, whose inclosures embrace upwards of 1,000,000 acres; the Prairie Cattle Company (Scotch) in Colorado, upwards of 1,000,000; H. H. Metcalf, River Bend, Colorado, 200,000; John W. Powers, Colorado, 200,000; McDaniel & Davis, Colorado, 75,000; Routchler & Lamb, Colorado, 40,000; J. W. Frank, Colorado, 40,000; Garnett & Langford, Colorado, 30,000; B. C. Tane, Colorado, 50,000; Leivesy Brothers, Colorado, 150,000; Vrooman & McPife, Colorado, 50,000; Beatty Brothers, Colorado, 40,000; Chick, Brown & Co., Colorado, 30,000; Reynolds Cattle Company, Colorado, 50,000; several other cases in Colorado, embracing from 10,000 to 30,000; Coe & Carter, Nebraska, fifty miles of fence; J. W. Wilson, Nebraska, forty miles; J. W. Boster, twenty miles; William Humphrey, Nevada, thirty miles; Nelson & Son, Nevada, twenty-two miles; Kennebec Ranch, Nebraska, from 20,000 to 50,000 acres.

PUBLIC LAND GRANTS AND FORFEITS.

CANAL GRANTS.

May 26, 1824, to June 30, 1891.

	ACRES.
Wisconsin	325,431
Michigan	1,250,000
Ohio	1,100,361
Indiana	1,457,366
Illinois	290,915
Total	4,424,073

RIVER IMPROVEMENT GRANTS.

From 1822 to June 30, 1891.

Alabama	400,016
Wisconsin	683,802
Iowa	322,392
Total	1,406,210

MILITARY WAGON ROADS.

March 3, 1863, to June 30, 1891.

Wisconsin	302,930
Michigan	221,013
Oregon	1,258,786
Total	1,782,729

Lands actually conveyed from 1850 to June 30, 1891, for railroad companies.

	ACRES.
Illinois	2,595,053
Mississippi	935,158
Alabama	2,931,780
Florida	1,764,412
Louisiana	1,908,059
Arkansas	2,552,344
Missouri	1,396,429
Iowa	4,709,759
Michigan	3,229,010
Wisconsin	3,056,011
Minnesota	8,906,714
Kansas	4,687,660
Nebraska	3,783,327
Colorado	209,232
Wyoming	159,437
Utah	116,298
Nevada	361,831
California	3,047,534
Oregon	332,002
New Mexico	23,087
Arizona	373,099
Total	46,317,296

Lands forfeited to U. S.—Lands forfeited by acts of Congress and restored to the public domain aggregate about 36,681,527 acres.

TITLES TO THE PUBLIC LANDS—HOW ACQUIRED.

The public lands of the United States still unsold and open to settlement are divided into two classes, one class being sold by the Government for $1.25 per acre as the minimum price, the other at $2.50 per acre, being the alternate sections reserved by the United States in land grants to railroads, etc. Such tracts are sold upon application to the Land Register. Heads of families, or citizens over twenty-one years, who may settle upon any quarter section (or one hundred and sixty acres) have the right under the pre-emption law of prior claim to purchase, on complying with the regulations.

Under the homestead laws, any citizen, or intending citizen, has the right to one hundred and sixty acres of the $1.25 land, or eighty acres of

the $2.50 land, after an actual settlement and cultivation of the same for five years. Under the timber culture law, any settler who has cultivated for two years as much as five acres in trees of an eighty-acre homestead, or ten acres of a homestead of one hundred and sixty acres, is entitled to a free patent for the land at the end of eight years.

PUBLIC LANDS STILL VACANT IN THE UNITED STATES.

	ACRES.		ACRES.
Alabama	907,947	Nebraska	10,799,332
Arizona	54,608,531	Nevada	42,385,734
Arkansas	5,091,313	New Mexico	54,790,863
California	50,132,241	North Dakota	19,500,555
Colorado	41,998,377	Oklahoma	6,394,863
Florida	2,806,587	Oregon	38,435,873
Idaho	34,225,149	South Dakota	13,006,396
Kansas	734,080	Utah	35,231,466
Louisiana	1,172,518	Washington	19,098,420
Michigan	724,232	Wisconsin	871,067
Minnesota	6,510,611	Wyoming	52,055,248
Mississippi	978,418		
Missouri	808,799	Total	567,586,783
Montana	74,558,143		

INDIANS AND THEIR RESERVATIONS.

The entire extent of territory now in a state of reservation for Indian purposes, including all portions of the Indian Territory, whether in fact occupied or unoccupied by Indians, is 112,413,440 acres, being equivalent to an average of 456 acres for each Indian, computed on the last reported number of the total population, including those estimated as outside the reservations. Of this area about 81,020,129 acres are within the scope of the general allotment law of 1887, and afford an average for the population residing upon such lands, amounting to 173,985, of about 465 acres to each. It will be seen that, by the execution of the general allotment law and breaking up of the reservations, a wide area of the public domain will be opened to settlement.

The Cherokees, Creeks, Choctaws, Chickasaws and Seminoles, constituting the five civilized tribes; the Osages, Miamis, Peorias, and Sacs and Foxes of the Indian Territory, and the Seneca nation in New York, are excepted from the provisions of the allotment act. The territory occupied by them embraces 21,969,695 acres, not counting therewith the 6,024,239 acres of the Cherokee outlet, the 1,887,801 acres known as Oklahoma, and the 1,511,576 acres lying in the Indian Territory south of the north fork of the Red River. The number of these excepted Indians is shown by the reports to be 72,110 in all.

INDIANS IN UNITED STATES, 1890.

Total number Indians in the United States, 249,273 (exclusive of Alaska, but including 32,567, taxed or taxable and self-sustaining, counted in general census). On reservations or at schools under control of Indian Office (not taxed or taxable), 133,382. Five Civilized Tribes, Indians and colored, incidentally under the Indian Office and self-supporting, 68,371 (Cherokee, 25,357, colored, 4,242, total, 29,599; Chickasaw, 3,464, colored, 3,718, total, 7,182; Choctaw, 9,996, colored, 4,401, total, 14,397; Creek, 9,291, colored, 5,341, total, 14,632; Seminole, 2,539, colored, 22, total, 2,561); or 64,871, less 3,500 colored, estimated, not members of tribes. The Chickasaw nation contains 1,161 other Indians,

the Choctaw 257. Population of Five Civilized Tribes, 66,289 (Indians, 52,065, colored Indian citizens and claimants, 14,224). New Mexico Pueblos, 8,278; Six Nations, Saint Regis and other New York Indians, 5,304; North Carolina, Eastern Cherokees, 2,885. Apaches held as prisoners of war, Mount Vernon barracks, 384, Indians in State or Territorial prisons, 184.

SLAVERY AND SERFDOM: A COMPARISON.

Some of the wealthy Romans had as many as 10,000 slaves. The minimum price fixed by the law of Rome was $80, but after great victories they could sometimes be bought for a few shillings on the field of battle. The day's wages of a Roman gardener were about sixteen cents, and his value about $300, while a blacksmith was valued at about $700, a cook at $2,000, an actress at $4,000 and a physician at $11,000.

The number of slaves emancipated in the British Colonies in 1834 was 780,993, the indemnity aggregating, in round figures, $100,000,000. In Brazil, in 1876, there were 1,510,800 slaves, 15 per cent. of the entire population. These were held by 41,000 owners, averaging 37 to each owner. In 1882 the number of slaves was 1,300,000. Owing to the gradual abolition of slavery in Brazil by law, it is expected that it will be entirely obsolete in 1900.

SLAVERY IN THE UNITED STATES.

YEAR.	NUMBER.	YEAR.	NUMBER.
1790	697 900	1830	2,009,030
1800	893,040	1840	2,487,500
1810	1,191,400	1850	3,204,300
1820	1,538,100	1860	3,979,700

SERFDOM IN RUSSIA.

There were 47,932,000 serfs in Russia in 1861, as follows: Crown serfs, 22,851,000; appanage, 3,326,000; held by nobles, 21,755,000. The cost of redemption was, in round numbers, about $325,000,000, as follows:

Mortgages remitted	$152,000,000
Government scrip	101,000,000
Paid by serfs	52,000,000
Balance due	20,000,000

The indemnity to the nobles was $15 per serf. The lands are mortgaged to the state till 1912. The lands ceded to Crown serfs are mortgaged only till 1901. The item of "mortgages remitted" is the amount due by nobles to the Imperial Bank and canceled.

AUSTRIAN SERVITUDE (1840).

	VALUE.
Labor (two days per week)	$175,000,000
Tithe of crops, etc.	60,000,000
Male tribute, timber	7,000,000
Female tribute, spun wool	9,000,000
Fowl, eggs, butter	5,000,000
Total	$256,000,000

There were 7,000,000 serfs, whose tribute averaged more than $35 per head, which was, in fact, the rent of their farms. Some Bohemian nobles had as many as 10,000 serfs. The redemption was effected by giving the nobles 5 per cent. Government scrip, and land then rose 50 per cent. in value.

PUBLIC DEBT OF THE UNION.

1855	July 1	$35,586,858.56	1872	July 1	$2,253,751,328.78
1856	"	31,972,537.90	1873	"	2,234,482,993.20
1857	"	28,699,831.85	1874	"	2,251,690,468.43
1858	"	44,911,881.03	1875	"	2,232,284,531.95
1859	"	58,496,837.88	1876	"	2,180,395,067.15
1860	"	64,842,287.88	1877	"	2,205,301,393.10
1861	"	90,580,873.72	1878	"	2,256,903,892.53
1862	"	524,176,412.13	1879	"	2,245,495,072.04
1863	"	1,119,772,138.63	1880	"	2,120,415,370.63
1864	"	1,815,784,370.57	1881	"	2,069,013,569.58
1865	"	2,680,647,869.74	1882	"	1,918,312,994.03
1866	"	2,773,236,173.69	1883	"	1,884,171,738.07
1867	"	2,678,126,103.87	1884	"	1,830,528,323.57
1868	"	2,611,678,851.19	1885	"	1,876,424,275.14
1869	"	2,588,452,213.94	1886	"	1,756,445,205.78
1870	"	2,480,672,427.81	1887	Dec. 1	1,664,461,536.38
1871	"	2,353,211,332.32	1888	"	1,680,917,706.23
	1890 Dec. 1	1,547,296,426.00			

OFFICIAL DEBT STATEMENT OF DECEMBER 1, 1892.

INTEREST-BEARING DEBT.

Funded loan of 1891	$25,364,500.00
Funded loan of 1907	559,592,050.00
Refunding Certificates	76,430.00
Aggregate of Interest-bearing debt, exclusive of United States bonds issued to Pacific railroads	$585,032,980.00

DEBT ON WHICH INTEREST HAS CEASED SINCE MATURITY.

Aggregate of debt on which interest has ceased since maturity	$2,432,015.26

DEBT BEARING NO INTEREST.

Legal-tender notes		$346,681,016.00
Old demand notes		55,647.50
National bank notes:		
Redemption account	24,137,678.25	
Fractional currency:		
Less $8,375,934 estimated as lost or destroyed, act of June 21, 1879	6,903,462.62	
Aggregate of debt bearing no interest		$377,777,804.37

CERTIFICATES AND NOTES ISSUED ON DEPOSITS OF COIN AND LEGAL-TENDER NOTES AND PURCHASES OF SILVER BULLION.

Gold certificates	$142,821,639.00
Silver certificates	326,251,304.00
Currency certificates	8,500,000.00
Treasury notes of 1890	120,796,713.00
Aggregate of certificates and Treasury notes, offset by cash in the Treasury	$598,369,656.00

CLASSIFICATION OF DEBT DECEMBER 1, 1892.

Interest-bearing debt		$585,032,980.00
Debt on which interest has ceased since maturity		2,432,015.26
Debt bearing no interest		377,777,804.37
Aggregate of interest and non-interest bearing debt		$965,242,799.63
Certificates and Treasury notes offset by an equal amount of cash in the Treasury		598,369,656.00
Aggregate of debt, including certificates and Treasury notes		$1,563,612,455.63

CASH IN THE TREASURY.

Gold certificates	$142,821,639.00	
Silver certificates	326,251,304.00	
Currency certificates	8,500,000.00	
Treas'y notes of 1890	120,796,713.00	
		$598,369,656.00
Fund for redemption of uncurrent National bank notes	85,855,215.24	
Outstanding checks and drafts	4,822,765.98	
Disbursing officers' balances	22,786,939.77	
Agency accounts, etc.	3,281,906.86	
		36,776,227.85
Gold reserve	$100,000,000.00	
Net cash balance	30,328,918.50	
		130,328,918.50
Total		$765,474,802.35
Cash balance in the Treasury, November 30, 1891		$130,328,918.50

ARMIES OF THE CIVIL WAR, 1861–65.

Number of men in the Union Army, furnished by each state and territory, from April 15, 1861, to close of war.

STATES AND TERRITORIES.	NUMBER OF MEN FURNISH'D	AGG'GATE REDUCED TO A THREE YEARS' STANDING.	STATES AND TERRITORIES.	NUMBER OF MEN FURNISH'D	AGG'GATE REDUCED TO A THREE YEARS' STANDING.
Alabama	2,556	1,611	New York	448,850	392,270
Arkansas	8,289	7,886	North Carolina	3,156	3,156
California	15,725	15,725	Ohio	313,180	240,514
Colorado	4,903	3,697	Oregon	1,810	1,773
Connecticut	55,864	50,623	Pennsylvania	337,936	265,517
Delaware	12,284	10,322	Rhode Island	23,236	17,866
Florida	1,290	1,290	South Carolina	.....	.....
Georgia	.....	.....	Tennessee	31,092	26,394
Illinois	259,092	214,133	Texas	1,965	1,639
Indiana	196,363	153,576	Vermont	33,288	29,068
Iowa	76,242	68,630	Virginia	.....	.....
Kansas	20,149	18,706	West Virginia	32,068	27,714
Kentucky	75,760	70,839	Wisconsin	91,327	79,260
Louisiana	5,224	4,654	Dakota	206	206
Maine	70,107	56,776	Dist. of Columbia	16,534	11,506
Maryland	46,638	41,275	Indian Territory	3,530	3,530
Massachusetts	146,730	124,104	Montana	.....	.....
Michigan	87,364	80,111	New Mexico	6,561	4,432
Minnesota	24,020	19,693	Utah	.....	.....
Mississippi	545	545	Washington Ter.	964	964
Missouri	109,111	86,530	U. S. Army	.....	.....
Nebraska	3,157	2,175	U. S. Volunteers	.....	.....
Nevada	1,080	1,080	U.S. colored troops	93,441	91,789
New Hampshire	33,937	30,849			
New Jersey	76,814	57,908	Total	2,772,408	2,320,272

The armies of the United States were commanded during the whole Civil War by President Lincoln as commander-in-chief under the constitutional provision; and under him, as general commanders, by Brevet Lieutenant General Winfield Scott until November 6, 1861; by Major General George B. McClellan from November 6, 1861, to March 11, 1862; by Major General Henry W. Halleck from July 11, 1862, to March 12, 1864 (there being no general commander between March 11 and July 11, 1862); and Lieutenant General and General U. S. Grant from March 12, 1864, to March 4, 1869. The first of the principal armies into which the force of the United States was divided was the Army of the Potomac. This army was called into existence in July, 1861, and was organized by Major General George B. McClellan, its first commander; November 5, 1862, Major General A. E. Burnside took command of it; January 25, 1863, Major General Joe Hooker was placed in command, and June 27, 1863, Major General George G. Meade succeeded him. The Army of the Ohio was organized by General D. C. Buell, under a general order from the War Department dated November 9, 1861, from troops in the military department of the Ohio. General Buell remained in command until October 30, 1862, when he was succeeded by General W. S. Rosecrans. At this time the Army of the Ohio became the Army of the Cumberland and a new department of the Ohio was formed and Major General H. G. Wright, assigned to the command thereof. He was succeeded by Major General Burnside, who was relieved by Major General J. G. Foster of the command of both department and army. Major General Schofield took command January 28, 1864, and January 17, 1865, the department was merged

into the Department of the Cumberland. It continued under the command of General Rosecrans until October, 1863, when General George H. Thomas took command of it. The Army of the Tennessee was originally the Army of the District of Western Tennessee, fighting as such at Shiloh. It became the Army of the Tennessee on the concentration of troops at Pittsburgh Landing under General Halleck, and when the Department of the Tennessee was formed, October 16, 1862, the troops serving therein were placed under command of Major General U. S. Grant. October 27, 1863, Major General William T. Sherman was appointed to the command of this army; March 12, 1864, Major General J. B. McPherson succeeded him; July 30, 1864, McPherson having been killed, Major General O. O. Howard was placed in command, and May 19, 1862, Major General John A. Logan succeeded him. Other minor armies were the Army of Virginia, which was formed by the consolidation of the forces under Major Generals Fremont, Banks and McDowell, by order of the War Department, August 12, 1862. Major General John Pope was placed in command, but after the disastrous defeat of this general at Manassas the army as such was discontinued and its troops transferred to other organizations. The Army of the James was formed of the Tenth and Fourteenth corps with cavalry, and was placed under the command of Major General Butler. Its operations were carried on in conjunction with the Army of the Potomac. Other temporary arrangements of the troops formed the Army of the Mississippi in the Mississippi River operations in 1862; the Army of the Gulf in Louisiana in May, 1863; the Army of West Virginia, in the valley of the Shenandoah, in May, 1864; and the army of the Middle Military Division in Virginia in the fall of 1864.

THE WORLD'S FAIR IN A NUTSHELL.

The World's Columbian Exposition, or the World's Fair, was created by an act of Congress, approved April 25, 1890, entitled "An act to provide for celebrating the four hundredth anniversary of the discovery of America by Christopher Columbus, by holding an international exhibition of arts, industries, manufactures, and the product of the soil, mine and sea, in the city of Chicago, in the State of Illinois."

The act provided for the appointment of commissioners, who should organize the Exposition, and when these preliminaries were completed the President was required to make a public proclamation of the fact and officially invite "all the nations of the earth" to participate in the Exposition. This proclamation was issued December 24, 1890.

The dedication ceremonies took place October 21, 1892, and the days preceding and following, the President of the United States being represented by the Vice-President, who, accompanied by the Cabinet and many prominent officers of the Government, army and navy, and distinguished citizens, officially dedicated the Exposition.

Immediately upon the completion of these ceremonies the installing of the exhibits began.

The great Exposition was opened to the public on May 1, 1893, and will continue open until October 30 following. The admission fee is placed at 50 cents.

The total cost of the Exposition, from its beginning to its close, is estimated at $25,000,000.

THE LOCATION OF THE GREAT FAIR.

So far as visitors to the Fair are concerned, the location of the

grounds upon which the main buildings stand is a favorable one. Jackson Park and Midway Plaisance, the Exposition site, are in the southeastern part of the city of Chicago. The two together embrace six hundred and thirty-three acres, attractively situated on the shore of Lake Michigan, the park front being a mile and a half long from northwest to southeast.

THE EXPOSITION BUILDINGS.

BUILDINGS.	Dimensions in Feet.	Area in Acres.*	Approximate Cost.
Art Galleries	320 x 500	4.6	$670,500
Art Annexes	136 x 220	1.4	
Fisheries	162.1 x 361.1	1.4	224,750
Fisheries Annexes	135 diameter.	7	
Manufactures	787 x 1,687	44	1,600,750
Agriculture	500 x 800	15	691,500
Agriculture Annex	312 x 550.5	4	
Machinery	494 x 842	17	1,050,750
Machinery Annex	490 x 551	6 2	
Machinery, Machine Shop and Boiler House	86 x 1,103.6	2.2	75,000
Administration	262 x 262	4.5	436,500
Electricity	345 x 690	9.3	413,500
Mines	350 x 700	8.5	266,500
Transportation	256 x 960	9.4	369,000
Transportation Annex	435 x 850	8.5	
Horticulture	350.8 x 997.8	8	287,000
Woman's	198.8 x 398	3.3	138,000
Forestry	308 x 528	2.6	90,250
Leather	150 x 625	4.3	100,000
Dairy	94.1 x 199.8	.8	30,000
Sawmill	60 x 100	.2	35,000
Stock Pavilion	265 x 960	5.8	125,000
Stock Sheds		25	210,000
Other Buildings—Music Hall, Choral Hall, Casino, Indian School, Education Building, "La Rabida," Merchant Tailors, Assembly Hall, Greenhouse, Power House, etc.		22.3	1,303,000
United States Government Building	351 x 421	6.2	400,000
Imitation Battleship	69.25 x 348	.6	100,000
Illinois State Building	160 x 450	3.2	250,000
State and Foreign Buildings (approximate)		12	2,000,000
Midway Plaisance Buildings (approximate)		9	1,500,000
		240	$12,267,000

*Floor space and including galleries.

MANUFACTURES AND LIBERAL ARTS BUILDING.

The principal building in point of area and importance is that of Manufactures and Liberal Arts, a mammoth structure, measuring 1,687 to 1,787 feet and covering 44 acres—the largest exposition structure ever built. It cost $1,600,750.

STATE BUILDINGS.

Nearly all the States and Territories of the United States have made appropriations toward the expense of special exhibits at the Exposition, and most of them have characteristic buildings in the grounds. The New York and Illinois buildings are conspicuously fine.

FOREIGN COUNTRIES.

The following are the countries which have received allotments: Argentine Republic, Austria, Belgium, Bolivia, Brazil, Bulgaria, Chile, China, Colombia, Corea, Costa Rica, Cuba, Denmark, Egypt, Ecuador, France and its provinces, Great Britain and all the British Colonies, Greece, Guatemala, Hawaiian Islands, Haiti, Honduras, Hungary, Italy, Japan, Liberia, Mexico, Madagascar, Netherlands and colonies, Nica-

ragua, Norway, Paraguay, Persia, Peru, Russia, Salvador, Santo Domingo, Servia, Siam, Sweden, Switzerland, Uruguay and Venezuela.

Of these the following countries have independent Government buildings: Austria, Canada, Ceylon, China, Colombia, Costa Rica, Ecuador, France, Great Britain, Guatemala, Haiti, Italy, Japan, Nicaragua, Norway, Russia, Sweden and Turkey.

THE MIDWAY PLAISANCE SHOWS.

The Midway Plaisance, which is a great tract lying between 59th and 60th streets, extending east and west, contains the principal "side shows," some of which are of both an unique and elaborate character. Among these are the Ferris Wheel, over 250 feet high, Bohemian Glass Factory, Japanese Bazaars, the Animal shows, Dutch Settlement, German Village, Natatorium, Panorama of the Bernese Alps, Turkish Village, Minaret Tower, Moorish Palace, Street in Cairo, Chinese Theater, Captive Balloon, Indian Village, Roman House, Chinese Tea House, Barre Sliding Railway, Ice Railway, etc.

TRANSPORTATION.

Means of easy and rapid transportation from all parts of Chicago and from railroad stations to the Exposition are provided. The steam, electric, cable and horse railroads and the elevated railroad convey passengers by land to the principal entrances, and numerous steamboats ply between the city and the great pier on the water side of the grounds.

In the extreme south part of the grounds the stock exhibit, under sheds covering forty acres, is located.

During the Exposition there are restaurants and dining-rooms in all the main buildings, a luncheon place in the Dairy Building and a railroad luncheon counter in the Transportation Building.

GOVERNMENT.

The following are the officers of the "World's Columbian Commission:"

President, Thomas W. Palmer; *Secretary*, John T. Dickinson; *Director-General*, George R. Davis.

Department Chiefs.—Agriculture, W I. Buchanan; Horticulture, John M. Samuels; Live Stock, Eber W. Cottrell; Fish and Fisheries, John W. Collins; Mines and Mining, F. J. V Skiff; Machinery, L. W. Robinson; Transportation, W. A. Smith; Manufactures, James Allison; Electricity, John P. Barrett; Fine Arts, Halsey C. Ives; Liberal Arts, S. H. Peabody; Ethnology, F. W. Putnam; Forestry, W. I. Buchanan, in charge; Publicity and Promotion, Moses P. Handy; Foreign Affairs, Walker Fearn; Secretary of Installation, Joseph Hirst; Traffic Manager, E. E. Jaycox.

There are eight commissioners at large and two from each State and Territory and the District of Columbia. There are the same number of lady managers.

President of the Board of Lady Managers, Mrs. Potter Palmer; *Secretary*, Mrs. Susan Gale Cook.

The officers of the World's Columbian Exposition are as follows:

President, H. N. Higinbotham; *Secretary*, H. O. Edmonds; *Treasurer*, A. F. Seeberger; *Auditor*, William K. Ackerman; *Chief of Construction*, D. H. Burnham.

WORLD'S CONGRESS AUXILIARY.

A series of world's congresses in all departments of thought are a feature during the Exposition season. This work is divided into seventeen great departments, as follows: Agriculture, Art, Commerce and

Finance, Education, Engineering, Government, Literature, Labor, Medicine, Moral and Social Reform, Music, Public Press, Religion, Science and Philosophy, Temperance, Sunday Rest, and a General Department, embracing congresses not otherwise assigned. These general departments have been divided into more than one hundred divisions, in each of which a congress is to be held. Each division has its own local committee of arrangements.

Representative men from all parts of the world take part in these gatherings. They assemble for the most part in the Art Institute. The officers of the Auxiliary are Charles C. Bonney, *President;* Thomas B. Bryan, *Vice-President;* Lyman J. Gage, *Treasurer;* Benjamin Butterworth, *Secretary*.

ESSENCE OF THE CONSTITUTION.

Congress must meet at least once a year.

One State cannot undo the acts of another.

Congress may admit as many new States as desired.

One State must respect the laws and legal decisions of another.

The Constitution guarantees every citizen a speedy trial by jury.

Congress cannot pass a law to punish a crime already committed.

A State cannot exercise a power which is vested in Congress alone.

Bills for revenue can originate only in the House of Representatives.

A person committing a felony in one State cannot find refuge in another.

United States Senators are chosen by the legislatures of the States by joint ballot.

The Constitution of the United States forbids excessive bail or cruel punishment.

When Congress passes a bankruptcy law it annuls all the State laws on that subject.

Treaties with foreign countries are made by the President and ratified by the Senate.

In the United States Senate Rhode Island or Nevada has an equal voice with New York.

Writing alone does not constitute treason against the United States. There must be an overt act.

Congress cannot lay any disabilities on the children of a person convicted of crime or misdemeanor.

The Territories each send a delegate to Congress, who has the right of debate, but not the right to vote.

The Vice-President, who ex-officio presides over the Senate, has no vote in that body except on a tie ballot.

An act of Congress cannot become a law over the President's veto except on a two-thirds vote of both houses.

An officer of the Government cannot accept title of nobility, order or honor without the permission of Congress.

Money lost in the mails cannot be recovered from the Government. Registering a letter does not insure its contents.

It is the House of Representatives that may impeach the President for any crime, and the Senate hears the accusation.

If the President holds a bill longer than ten days while Congress is still in session, it becomes a law without his signature.

Silver coin of denominations less than $1 is not a legal tender for more than $5.00. Copper and nickel coin is not legal tender.

The term of a Congressman is two years, but a Congressman may be re-elected to as many successive terms as his constituents may wish.

Amendments to the Constitution require a two-thirds vote of each house of Congress and must be ratified by at least three-fourths of the States.

When the militia is called out in the service of the General Government, they pass out of the control of the various States under the command of the President.

The President of the United States must be thirty-five years of age; a United States Senator, thirty; a Congressman, twenty-five. The President must have been a resident of the United States fourteen years.

A grand jury is a secret tribunal, and may hear only one side of a case. It simply decides whether there is good reason to hold for trial. It consists of twenty-four men, twelve of whom may indict.

A naturalized citizen cannot become President or Vice-President of the United States. A male child born abroad of American parents has an equal chance to become President with one born on American soil.

A DOZEN AMERICAN WONDERS.

Croton Aqueduct, in New York City.

City Park, Philadelphia, Pennsylvania. The largest park in the world.

Lake Superior, the largest lake in the world.

Mammoth Cave, in Kentucky.

Niagara Falls. A sheet of water three-quarters of a mile wide, with a fall of 175 feet.

Natural Bridge, over Cedar Creek, in Virginia.

New State Capitol, at Albany, N. Y.

New York and Brooklyn Bridge.

The Central Park, in New York City.

Washington Monument, Washington, D. C., 555 feet high.

Yosemite Valley, California; 57 miles from Coulterville. A valley from 8 to 10 miles long, and about one mile wide. Has very steep slopes about 3,500 feet high; has a perpendicular precipice 3,089 feet high; a rock almost perpendicular, 3,270 feet high; and waterfalls from 700 to 1,000 feet.

Jackson Park, Chicago, with the World's Columbian Fair of 1893.

THE AMERICAN NOBILITY.

Whoe'er amidst the sons
Of reason, valor, liberty, and virtue
Displays distinguished merit, is a noble
Of Nature's own creating.

THOMSON.

TIME AND ITS LANDMARKS.

Time's the king of men—
For he's their parent, and he is their grave,
And gives them what he will, not what they crave.
—SHAKSPEARE.

DATES AND FACTS TO REMEMBER.

Twenty-four hour clock time is gaining in favor.

Fifteen degress of longitude represent one hour of time.

All over Western Canada 4 P. M. is called "sixteen o'clock."

The axial rotation of the earth is the measure of time everywhere.

The astronomers of Egypt were the first to give names to the days.

It takes just one second of time for electricity to travel 288,000 miles.

Fenelon says suggestively: "God never gives us two moments together."

A vessel sailing eastwards across the Pacific has two consecutive days of the same name and date.

The old advice to "seize time by the forelock" is from Pittacus, one of the Seven Wise Men of Greece.

The first clock mentioned in history was a gift from the Sultan of Egypt to Emperor Frederic II., A. D. 1232.

A good instrument for measuring short spaces of time, invented by Wheatstone in 1840, is called the chronoscope.

It was Montgomery who said that "man cannot make a single second of time, but can waste whole years of it."

Time will bring to light, says Horace, whatever is hidden; it will conceal and cover up what is now shining with the greatest luster.

We understand by a generation a single succession in natural descent, the children of the same parents; in years three generations are accounted to make a century.

The sun-dial, as a time-measurer, was known in very early ages, and is mentioned in Scripture 713 B.C. A sun-dial only agrees with a clock on four days in the year.

It is the science of chronology which arranges the events of history in their order of time. The earliest modern works on the subject appear to have been compiled by the Benedictines, 1783 *et seq.*

If a railway were built to the sun, and trains upon it were run at the rate of 30 miles an hour, day and night, without a stop, it would require 350 years to make the journey from the earth to the sun.

A chronograph is an instrument noting time within the fraction of a second. By the *electrical chronograph*, used by astronomers, the transit of a star can be recorded to within *one-hundredth* of a second.

The Christian era begins with the birth of Christ. Its beginning coincides with the middle of the 4th year of the 194th Olympiad; the 753rd of the building of Rome, and the 4714th of the Julian era.

The clepsydra is an instrument to measure time by the trickling or escape of water. In Babylonia, India and Egypt, the clepsydra was used from before the dawn of history, especially in astronomical observations.

Decoration Day, or Memorial Day, in the United States, is a day set apart on which the graves of soldiers are visited and decorated with flowers by surviving comrades and friends. It has been created a national holiday.

There is no such thing as time, argues Leigh Richmond, "it is but space occupied by incident; it is the same to eternity as matter is to infinite space—a portion out of the immense, occupied with something within the sphere of mortal sense."

Thanksgiving Day was first established as a holiday in the year 1622. The custom now obtains throughout the United States, the last Thursday in November being usually the thanksgiving day appointed by the President for the mercies of the past year.

Watches were invented at Nuremberg prior to 1500, and were brought to England from Germany in 1577. The spiral hair-spring was invented by Dr. Hooke in 1651, the compensation balance by John Harrison in 1726, and the English lever escapement by Thomas Mudge in 1766.

We call that a Chronicle in which events of history are treated in the order of time. A chronicle differs from annals in being more connected and full, the latter merely recording individual occurrences under the successive dates. Most of the older histories were called chronicles.

The familiar hour glass is an instrument made up of two glass globes placed one above another. From the upper globe, through a small hole of communication, there runs a quantity of fine sand. The name is derived from the time the sand takes to run from the upper to the lower glass.

In America Arbor Day is a day set apart for the planting of shade trees, shrubs, etc., by school children. Millions of trees have been planted since its institution. The first Friday in May has been selected for this purpose in Canada; in the United States, different days are chosen in the several States.

Clocks are of ancient date, one having been made by Pacificus, archdeacon of Verona, in the ninth century. Clocks with wheels were used in monasteries about the twelfth century, and were made to strike the hour. Pendulum said to have been first applied by Harris, 1641; dead-beat pendulum invented, 1700; and the compensating pendulum, 1715.

The chronometer is an instrument for measuring time, now generally applied only to those watches specially made for determining longitude at sea. A chronometer which gained a prize of $100,000, offered by the British Board of Longitude for a timepiece to ascertain longitude within thirty miles, was made in 1761, by John Harrison, of Foulby, near Pontefract.

The Japanese divide the day into six day hours, from the rising to the setting of the sun, and six night hours, from sunset to sunrise. Accordingly, although the dials of their clocks are figured with twelve numerals, the movement of the hands do not correspond with our own, these movements being regulated by ingenious mechanism to correspond with the variations in the length of days and nights.

July 15 was called St. Swithin's Day from the legend of St. Swithin, Bishop of Winchester, the tutor of King Alfred. To signify his displeasure at an attempt to bury him in the chancel of the minster instead of the churchyard, according to his directions, the bishop is said to have caused rain to fall for forty days. From this the popular superstition arose that if rain falls on July 15 it will continue for forty days.

A watch on shipboard is a division of the crew into two – or if it be a large crew into three—sections, that one set of men may have charge of the vessel while the others rest. The day and night are divided into watches of four hours each, except the period from 4 to 8 P. M., which is divided into two *dog-watches* of two hours' duration each. The object of the dog-watches is to prevent the same men being always on duty at the same hours.

Another name for Palm Sunday is Fig Sunday. The term is derived from the custom in some countries of eating figs on this day, as snap-dragons on Christmas Eve, plum-pudding on Christmas Day, oranges and barley sugar on St. Valentine's Eve, pancakes on Shrove Tuesday, salt cod-fish on Ash Wednesday, frumenti on Mothering Sunday (Mid-lent), cross-buns on Good Friday, gooseberry tart on Whit Sunday, goose on Michaelmas Day, nuts on All-Hallows, and so on.

A Cycle in astronomy and mathematical chronology is a period or interval of time in which certain phenomena always recur in the same order. There are two great natural cycles, that of the sun and that of the moon. The solar cycle is a period of twenty-eight Julian years, after which the same days of the week recur on the same days of the year. The lunar or metonic cycle consists of nineteen years or two hundred and thirty-five lunations, after which the successive new moons happen on the same days of the year as during the previous cycle.

Christmas Day, a festival of the Christian church, observed on the 25th of December in memory of the birth of Jesus Christ. There is, however, a difficulty in accepting this as the date of the nativity, December being the height of the rainy season in Judea, when neither flocks nor shepherds could have been at night in the fields of Bethlehem. The Christian communities which keep Christmas, however, would probably agree in laying more stress on keeping a day in memory of the Nativity, than on success in fixing the actual and precise date of the event.

The third season of the year, between summer and winter, is called autumn. Astronomically, in the northern hemisphere, it begins at the autumnal equinox, when the sun enters Libra, 22d September, and ends at the winter solstice, when the sun enters Capricorn, 21st December; but popularly, in Great Britain, it comprises the three months, August, September, and October. According to Littré, it extends in France from the end of August to the first fortnight of November; according to Webster, in North America it includes the months of September, October, and November. In the southern hemisphere it corresponds in time to the northern spring.

The era of the Olympiads is a system of dates adopted by the ancient Greeks. An Olympiad was the interval of four years between two consecutive celebrations of the Olympic games. These games were trials of strength and agility tested by running, boxing, leaping, wrestling and so on, held at Olympia, a plain of Elis, every fourth year. They were first employed for chronological purposes when Chorœbos won the foot-race, the principal match before chariot races were introduced.

A merry old holiday was St. Valentine's Day, the 14th of February, on which, in England and Scotland in former times, each young bachelor and maid received by lot one of the opposite sex as "valentine" for the year. It was a kind of mock betrothal, and was marked by the giving of presents. From Pepys' *Diary* we see that married as well as single people could be chosen. The usage, no doubt, grew out of the old notion, alluded to by Chaucer and Shakspeare, that on this day birds first choose their mates.

In Holland the following names for the months are in use: January—Lauromaand, chilly month; February—Sprokelmaand, vegetation month; March - Lentmaand, spring month; April—Grasmaand, grass month; May—Blowmaand, flower month; June—Zomermaand, summer month; July—Hooymaand, hay month; August—Oostmaand, harvest month; September—Hertsmaand, autumn month; October—Wynmaand, wine month; November—Slagmaand, slaughter month; December—Wintermaand, winter month.

The Roman month was divided into *Calends*, *Nones* and *Ides*. The Calends always fell upon the first of the month; in March, May, July and October, the Nones on the 7th and the Ides on the 15th; and in the remaining months, the Nones on the 5th and the Ides on the 13th. The Roman year began with March, and the months corresponded with ours except that their fifth and sixth months were called Quintilis and Sextilis. Afterwards they were changed to July and August in honor of the emperors Julius and Augustus.

STANDARD TIME.

What is known as the "new standard time" was adopted by agreement by all the principal railroads of the United States, at 12 o'clock, noon, on November 18, 1883. The system divides the continent into five longitudinal belts and fixes a meridian of time for each belt. These meridians are fifteen degrees of longitude, corresponding to one hour of time, apart. Eastern Maine, New Brunswick and Nova Scotia use the 60th meridian; the Canadas, New England, the Middle States, Virginia and the Carolinas use the 75th meridian, which is that of Philadelphia; the States of the Mississippi Valley, Alabama, Georgia and Florida, and westward, including Texas, Kansas, and the larger part of Nebraska and Dakota, use the 90th meridian, which is that of New Orleans. The Territories to the western border of Arizona and Montana go by the time of the 105th meridian, which is that of Denver; and the Pacific States employ the 120th meridian. The time divisions are known as intercolonial time, eastern time, central time, mountain time and Pacific time. A traveler passing from one time belt to another will find his watch an hour too fast or too slow, according to the direction in which he is going. All points in any time division using the time of the meridian must set their time-pieces faster or slower than the time indicated by the sun, according as their position is east or west of the line. This

change of system reduced the time standards used by the railroads from fifty-three to five, a great convenience to the railroads and the traveling public. The suggestion leading to the adoption of this new system originated with Professor Abbe of the Signal Bureau at Washington.

WHERE THE SUN JUMPS A DAY.

Chatham Island, lying off the coast of New Zealand, in the South Pacific Ocean, is peculiarly situated, as it is one of the habitable points of the globe where the day of the week changes. It is just in the line of demarkation between dates. There, at high 12 Sunday, noon ceases, and instantly Monday meridian begins. Sunday comes into a man's house on the east side and becomes Monday by the time it passes out the western door. A man sits down to his noonday dinner on Sunday and it is Monday noon before he finishes it. There Saturday is Sunday and Sunday is Monday, and Monday becomes suddenly transferred into Tuesday. It is a good place for people who have lost much time, for by taking an early start they can always get a day ahead on Chatham Island. It took philosophers and geographers a long time to settle the puzzle of where Sunday noon ceased and Monday noon began with a man traveling west fifteen degrees an hour, or with the sun. It is to be hoped that the next arctic expedition will settle the other mooted question. "Where will one stop who travels northwest continually?"

HARVEST MONTHS OF THE WORLD.

JANUARY.—The greater part of Chili, portions of the Argentine Republic, Australia and New Guinea.

FEBRUARY to MARCH.—The East Indies.

APRIL.—Mexico, Egypt, Persia and Syria.

MAY.—Japan, China, Northern Asia Minor, Tunis, Algiers, Morocco and Texas.

JUNE.—California, Spain, Portugal, Italy, Sicily, Greece and some of the southern departments of France.

JULY.—The larger part of France, Austria, Southern Russia and the larger part of the United States of America.

AUGUST.—Germany, England, Belgium, Netherlands, part of Russia, Denmark, part of Canada, and the Northeastern States of America.

SEPTEMBER.—Scotland, the larger part of Canada, Sweden, Norway and the north midlands of Russia.

OCTOBER.—The northern parts of Russia and the northern parts of the Scandinavian peninsula.

SHIP'S TIME.

On shipboard time is kept by means of "Bells," though there is but one bell on the ship, and to strike the clapper properly against the bell requires some skill.

First, two strokes of the clapper at the interval of a second, then an interval of two seconds; then two more strokes with a second's interval apart, then a rest of two seconds, thus:

Bell, one second; B., two seconds; B. s; B. ss, B. s; B. ss; B.

1 Bell is struck at 12:30, and again at 4:30, 6:30, 8:30 P. M.; 12:30, 4:30 and 8:30 A. M.

2 Bells at 1 (struck with an interval of a second between each—B. s, B.), the same again at 5, 7, and 9 P. M.; 1, 5 and 9 A. M.

3 Bells at 1:30 (B. s, B. ss, B.), 5:30, 7:30, and 9:30 P. M.; 1:30, 5:30 and 9:30 A. M.

4 Bells at 2 (B. s, B. ss, B. s, B.), 6 and 10 P. M.; 2, 6, and 10 A. M.

5 Bells at 2:30 (B. s, B. ss, B. s, B. ss, B.) and 10:30 P. M.; 2:30, 6:30 and 10:30 A. M.

6 Bells at 3 (B. s, B. ss, B. s, B. ss, B. s, B.) and 11 P. M.; 7, 3 and 11 P. M.

7 Bells at 3:30 (B. s, B. ss, B. s, B. ss, B. s, B. ss, B.) and 11:30 P. M.; 3:30, 7:30 and 11:30 A. M.

8 Bells (B. s, B. ss, B. s, B. ss, B. s, B. ss, B. s, B.) every 4 hours, at noon, at 4 P. M., 8 P. M., midnight, 4 A. M. and 8 A. M.

FRENCH REPUBLICAN CALENDAR.

I. The Months, beginning September 22. Each month 30 days.

AUTUMN.	
Vendemiaire (Vintage month)	September 22—October 21.
Brumaire (Foggy month)	October 22—November 20.
Frimaire (Sleety month)	November 21—December 20.
WINTER.	
Nivose (Snowy month)	December 21—January 19.
Pluviose (Rainy month)	January 20—February 18.
Ventose (Windy month)	February 19—March 20.
SPRING.	
Germinal (Budding month)	March 21—April 19.
Floral (Flowery month)	April 20—May 19.
Prairial (Pasture month)	May 20—June 18.
SUMMER.	
Messidor (Harvest month)	June 19—July 18.
Thermidor (Hot month)	July 19—August 17.
Fructidor (Fruit month)	August 18—September 16.

From September 16 to September 22 are five days. These were called *Sans culottides* (4 syl.), and were national holidays; 17 dedicated to Venus, 18 to Genius, 19 to Labor, 20 to Opinion, and 21 to Rewards.

II. The Years.

Year	I.	From September 22			1792, to September 21,		1793.
"	II.	"	"	"	1793, "	"	" 1794.
"	III.	"	"	"	1794, "	"	" 1795.
"	IV.	"	"	"	1795, "	"	" 1796.
"	V.	"	"	"	1796 "	"	" 1797.
"	VI.	"	"	"	1797, "	"	" 1798.
"	VII.	"	"	"	1798, "	"	" 1799.
"	VIII.	"	"	"	1799, "	"	" 1800.
"	IX.	"	"	"	1800, "	"	" 1801.
"	X.	"	"	"	1801, "	"	" 1802.
"	XI.	"	"	"	1802, "	"	" 1803.
"	XII.	"	"	"	1803, "	"	" 1804.
"	XIII.	"	"	"	1804, "	"	" 1805.
"	XIV.	"	"	"	1805, to the close of the year, when the reckoning was abolished by Napoleon.		

THE CHIEF CHRISTIAN FESTIVALS.

Christian Feasts are (*a*) Fixed; (*b*) Movable.

(*a*) The Fixed Christian Festivals are:

All Saints or All Hallows, November 1.

All Souls in honor of all the faithful dead, whether canonized or not, November 2.

Candlemas Day or the Purification of the Virgin Mary, February 2.
Christmas Day or the Nativity, December 25.
Circumcision, January 1.
Epiphany or Twelfth Day, January 6.
Innocents' Day, December 28.
Lady Day or Annunciation of the Virgin Mary, March 25.
The following are also called Saints' Days, or Red Letter Days:

Andrew	November 30
Barnabas	June 11.
James the Elder	July 25.
John the Baptist (his Nativity)	June 24.
John the Evangelist	December 27.
Luke the Evangelist	October 18.
Mark the Evangelist	April 25.
Matthew the Evangelist	September 21.
Matthias	February 24.
Michael (Michaelmas Day)	September 29.
Paul (his Conversion)	January 25.
Peter (by Catholics Peter and Paul)	June 29.
Philip and James the Less	May 1.
Simon and Jude	October 28.
Stephen (the first martyr)	December 26.
Thomas (the shortest day)	December 21.

(*b*) Movable Christian Feasts:
Ascension Day or Holy Thursday, ten days before Whit Sunday.
Ash Wednesday, the first day in Lent.
Easter Sunday.
Good Friday, the Friday before Easter Day.
Palm Sunday, the Sunday before Easter Day.
Pentecost or Whit Sunday, the seventh Sunday after Easter.
Sexagesima Sunday (about) sixty days before Easter, second Sunday before Lent.
Trinity Sunday, the Sunday following Whit Sunday.

THE CALENDARS OF HISTORY.

The Jewish Calendar dates all the years downwards from the creation, which it reckons at 3760 years and 2 months before the Christian era. The *civil year* begins with the month Tisri, the *ecclesiastical* with the month Nisan.

The Mohammedan Calendar begins with the first day of the first month of the year in which the Hegira, or flight of Mohammed, took place, i. e. 622 A. D., and was instituted in 639 or 640.

The year of this calendar is shorter than ours by 10 days, 21 hours and 14⅗ seconds.

The Julian Calendar, that adjusted by Julius Cæsar, made the year to consist of 365 days 6 hours, the fourth year containing 366 days; this was superseded by that of the Gregorian Calendar (New Style), so called from its having been authorized by Pope Gregory XIII. That pontiff, to harmonize the civil with the solar year, the former being in arrear, charged the Council of Trent with the correction of the Julian Calendar, and in 1582 issued a new calendar, omitting ten days, October 5 becoming October 15. All the nations of Europe, excepting Turkey, Greece and Russia, have adopted it. The New Style came into force in Great Britain in 1751; September 3 becoming September 14 in 1752.

In 1793 the National Convention of the first French republic decreed that the common era should be abolished in all civil affairs, and that a new era should commence from the foundation of the republic, Septem-

ber 22, 1792. The year was to be divided into twelve months of thirty days each, with five complementary days at the end, which were to be celebrated as festivals, and were dedicated to Virtue, Genius, Labor, Opinion, Rewards. Every fourth or "Olympic" year was to have a sixth complementary day to be called "Revolution Day," and every period of four years was to be called a Franciade. The first, second and third centurial years—viz. 100, 200, 300 were to be common years, the fourth centurial year 400 was to be a leap year, and this was to continue till the fortieth centurial year 4000, which was to be a common year. The months were to be divided into three parts of ten days each, called decades. The names of the months and the days of the Gregorgian Calendar to which they corresponded are given in another section.

THE MONTHS AND THEIR NAMES.

January, the first month of the year, was among the Romans held sacred to Janus, from whom it derived its name, and was added to the calendar along with February by Numa in 713 B.C. It was not till the eighteenth century that January was universally adopted by European nations as the *first* month of the year, although the Romans considered it as such as far back as 251 B.C.

February is the name given to the second month, in which were celebrated the Februa, or feasts to the manes of deceased persons.

March, the first month of the Roman year, and the third according to our present calendar, consists of 31 days. It was considered as the first month of the year in England until the change of style in 1752, and the legal year was reckoned from the 25th of March. Its last three days (old style) were once popularly supposed to have been *borrowed* by March from April, and are proverbially stormy.

To the fourth month of our year the Romans gave the name of *Aprilis*, derived from *aperire*, "to open," probably because it is the season when the buds begin to open. By the Anglo-Saxons it was called Eastermonth.

The name of the fifth month, May, is said to be derived from *Maia*, the mother of Mercury, to whom the Romans on the first day offered sacrifices. It was the third month of the Roman year.

June, the sixth month of the year in our calendar, but the fourth among the Romans, consisted originally of 26 days, to which four were added by Romulus, one taken away by Numa, and the month again lengthened to 30 days by Julius Cæsar.

The seventh month of the year in our calendar, and fifth in the Roman calendar, was originally called Quintilis ("the fifth"). At first it contained 36 days, was reduced to 31, then to 30, but was restored to 31 days by Julius Cæsar, in honor of whom it was named July.

August, the eighth month of the year, was so named by the Emperor Augustus (B.C. 63—A.D. 14), who commanded that his name should be given to the month. August was the sixth month of the Roman year and was previously called *Sextilis*.

September (Lat. *septem*, seven) was the seventh month of the Roman calendar, but is the ninth according to our reckoning. The Anglo-Saxons called it *gerst-monath*, "barley-month."

October (Lat. *octo*, eight) was the eighth month of the so-called "year of Romulus," but became the tenth when (according to tradition)

Numa changed the commencement of the year to January 1st, though it retained its original name.

November (Lat. *novem*, "nine") was among the Romans the ninth month of the year (the Ger. *Wind* month) at the time when the year consisted of ten months, and then contained 30 days. It subsequently was made to contain only 29, but Julius Cæsar gave it 31; and in the reign of Augustus the number was restored to 30, which number it has since retained.

December means the tenth month, and received that name from the Romans when the year began in March, and has retained its name since January and February were put at the beginning of the year.

THE ORIGIN OF THE DAYS OF THE WEEK.

The names of these are derived from Saxon idolatry. The Saxons had seven deities more particularly adored than the rest, namely: The Sun, the Moon, Tuisco, Woden, Thor, Friga and Saeter. Sunday being dedicated to the sun, was called by them Sunandaeg; his idol represented the bust of a man, with the face darting bright rays, holding a wheel before his breast, indicative of the circuit of the golden orb around our sphere. Monday was dedicated to the moon, and was represented by a female on a pedestal, with a very singular dress and two long ears. Tuesday was dedicated to Tuisco, a German hero, sire of the Germans, Scythians and Saxons. He was represented as a venerable old man, with a long, white beard, a scepter in his hand and the skin of a white bear thrown over his shoulders. Wednesday was consecrated to Woden, or Odin, a supreme god of the northern nations, father of the gods and god of war. He was represented as a warrior in a bold martial attitude, clad in armor, holding in his right hand a broad, crooked sword and a shield in his left. Thursday was consecrated to Thor, eldest son of Woden, who was the Roman Jupiter. He was believed to govern the air, preside over lightning and thunder, direct the wind, rain, and seasons. He was represented as sitting on a splendid throne, with a crown of gold adorned with twelve glittering stars, and a scepter in his right hand. Friday was sacred to Friga—Hertha or Edith—the mother of the gods and wife of Woden. She was the goddess of love and pleasure and was portrayed as a female with a naked sword in her right hand and bow in her left hand, implying that in extreme cases women should fight as well as men. Saturday was named in honor of Saeter, who is the Roman Saturnus. He was represented on a pedestal, standing on the back of a prickly fish called a perch, his head bare, with a thin, meager face. In his left hand he held a wheel and in his right a pail of water with fruits and flowers. The sharp fins of the fish implied that the worshipers of Saeter should pass safely through every difficulty. The wheel was emblematic of their unity and freedom, and the pail of water implied that he could water the earth and make it more beautiful.

THE HISTORIC AGES.

The Age of the Bishops, according to Hallam, was the ninth century.

The Age of the Popes, according to Hallam, was the twelfth century.

Varo recognizes *Three Ages:* 1st. From the beginning of man to the great Flood (the period wholly unknown). 2nd. From the Flood

to the first Olympiad (the mythical period). 3rd. From the first Olympiad to the present time (the historical period).

The Golden Age, a mythical period when the earth brought forth spontaneously, and the gods held converse with men.

The Silver Age the second period, when the gods taught men the useful arts.

The Age of Bronze. the third or transition period, semi-historical. The age of heroes. It followed the "Stone Age."

The Iron Age, the historic period, when wars abound, and man earns his food by labor.

LEGAL HOLIDAYS IN THE VARIOUS STATES.

JANUARY 1. NEW YEAR'S DAY: In all the States except Massachusetts, New Hampshire and Rhode Island.

JANUARY 8. ANNIVERSARY OF THE BATTLE OF NEW ORLEANS: In Louisiana.

JANUARY 19. LEE'S BIRTHDAY: In Georgia, North Carolina and Virginia.

FEBRUARY 12. LINCOLN'S BIRTHDAY: In Illinois.

FEBRUARY 14. 1893. MARDI GRAS: In Alabama and Louisiana.

FEBRUARY 22. WASHINGTON'S BIRTHDAY: In all the States except Arkansas, Iowa and Mississippi.

MARCH 2. ANNIVERSARY OF TEXAN INDEPENDENCE: In Texas.

MARCH 4. FIREMAN'S ANNIVERSARY: In New Orleans, La.

MARCH 31, 1893. GOOD FRIDAY: In Alabama, Louisiana, Maryland, Pennsylvania and Tennessee.

APRIL 5, 1893. STATE ELECTION DAY: In Rhode Island.

APRIL 21. ANNIVERSARY OF THE BATTLE OF SAN JACINTO: In Texas.

APRIL 26. MEMORIAL DAY: In Alabama and Georgia.

MAY 10. MEMORIAL DAY: In North Carolina.

MAY 20. ANNIVERSARY OF THE SIGNING OF THE MECKLENBURG DECLARATION OF INDEPENDENCE: In North Carolina.

MAY 30. DECORATION DAY: In Arizona, California, Colorado, Connecticut, Iowa, Illinois, Indiana, Kansas, Maine, Massachusetts, Michigan, Minnesota, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Utah, Vermont, Wisconsin, Washington and Wyoming.

JUNE 3. JEFFERSON DAVIS' BIRTHDAY: In Florida.

JULY 4. INDEPENDENCE DAY: In all the States.

JULY 24. PIONEERS' DAY: In Utah.

SEPTEMBER 4, 1893. LABOR DAY: In California, Colorado, Connecticut, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Montana, Nebraska, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, South Dakota, Utah, Virginia and Washington.

SEPTEMBER 9. ADMISSION DAY: In California.

OCTOBER 31. ADMISSION IN THE UNION DAY: Nevada.

NOVEMBER —. GENERAL ELECTION DAY: In Arizona, California, Florida, Idaho, Indiana, Kansas, Maryland, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, South Carolina, South Dakota, Tennessee, Texas, West Virginia, Washington, Wisconsin and Wyoming. In the States which hold elections in November, 1893, election day falls on the 7th instant.

NOVEMBER 30, 1893. THANKSGIVING DAY: Is observed in all the States, though in some it is not a statutory holiday.

NOVEMBER 25. LABOR DAY: In Louisiana.

DECEMBER 25. CHRISTMAS DAY: In all the States, and in South Carolina the two succeeding days in addition.

Sundays and Fast Days (whenever appointed) are legal holidays in nearly all the States.

ARBOR DAY is a legal holiday in Kansas, Rhode Island and Wyoming, the day being set by the Governor—in Nebraska, April 22; California, September 9; Colorado, on the third Friday in April; Montana, third Tuesday in April; Utah, first Saturday in April; and Idaho, on Friday after May 1.

Every Saturday after 12 o'clock noon is a legal holiday in New York, New Jersey, and the city of New Orleans, and from June 15 to September 15 in Pennsylvania.

There is no national holiday, not even the Fourth of July. Congress has at various times appointed special holidays, and has recognized the existence of certain days as holidays, for commercial purposes, in such legislation as the Bankruptcy act, but there is no general statute on the subject. The proclamation of the President designating a day of Thanksgiving only makes it a holiday in those States which provide by law for it.

THE ADJUSTMENT OF THE CALENDAR.

The Chaldeans, Egyptians and Indians, and indeed almost all the nations of antiquity, originally estimated the year, or the periodical return of summer and winter, by 12 lunations; a period equal to 354 days, 8 hours, 48 minutes, 36 seconds. But the solar year is equal to 365 days, 5 hours, 48 minutes, 49 seconds; or 10 days, 21 hours, 13 seconds longer than the lunar year, an excess named the *epact;* and accordingly the seasons were found rapidly to deviate from the particular months to which they at first corresponded; so that, in 34 years, the summer months would have become the winter ones, had not this enormous aberration been corrected by the addition or intercalation of a few odd days at certain intervals. Thus was the calendar first adjusted, and the solar year estimated to consist of 12 months, comprehending 365 days. But no account was taken of the odd hours, until their accumulation forced them into notice; and a nearer approximation to the exact measurement of a year was made about 45 years before the birth of Christ, when Julius Cæsar, being led by Sosigenes, an astronomer of his time, to believe the error to consist of exactly 6 hours in the year, ordained that these should be set aside, and accumulated for four years, when, of course, they would amount to a day of 24 hours, to be accordingly added to every fourth year. This was done by doubling or repeating the 24th of February; and, in order to commence aright, he ordained the first to be a "year of confusion," made up of 15 months, so as to cover the 90 days which had been then lost. The "Julian style" and the "Julian era" were then commenced; and so practically useful and comparatively perfect was this mode of time-reckoning, that it prevailed generally amongst Christian nations, and remained undisturbed till the renewed accumulation of the remaining error, of 11 minutes or so, had amounted, in 1582 years after the birth of Christ, to 10 complete days; the vernal equinox falling on the 11th instead of the 21st of March, as it did at the time of the council of Nice, 325

years after the birth of Christ. This shifting of days had caused great disturbances, by unfixing the times of the celebration of Easter, and hence of all the other movable feasts. And, accordingly, Pope Gregory XIII, after deep study and calculation, ordained that 10 days should be deducted from the year 1582, by calling what, according to the old calendar, would have been reckoned the 5th of October, the 15th of October, 1582. In Spain, Portugal and parts of Italy, the pope was exactly obeyed. In France the change took place in the same year, by calling the 10th the 20th of December. In the Low Countries the change was from the 15th of December to the 25th, but was resisted by the Protestant part of the community till the year 1700. The Catholic nations in general adopted the *style* ordained by their sovereign pontiff, but the Protestants were then too much inflamed against Catholicism in all its relations to receive even a purely scientific improvement from such hands. The Lutherans of Germany, Switzerland, and, as already mentioned, of the Low Countries, at length gave way in 1700, when it had become necessary to omit *eleven* instead of ten days. A bill to this effect had been brought before the Parliament of England in 1585, but does not appear to have gone beyond a second reading in the House of Lords. It was not till 1751, and after great inconvenience had been experienced for nearly two centuries, from the difference of the reckoning, that an act was passed (24 Geo. II, 1751) for equalizing the style in Great Britain and Ireland with that used in other countries of Europe. It was enacted, in the first place, that eleven days should be omitted after the 2d of September, 1752, so that the ensuing day should be the 14th; and, in order to counteract a certain minute overplus of time, that "the years 1800, 1900, 2100, 2200, 2300, or any other hundredth year of our Lord which shall happen in time to come, except only every fourth hundredth year of our Lord, whereof the year 2000 shall be the first, shall not be considered as leap years." Our present Eastern States being then British colonies, the forefathers of the Republic, of course, used this altered calendar as soon as it was adopted. A similar change was about the same time made in Sweden and Tuscany; and Russia is now the only country which adheres to the *old style;* an adherence which renders it necessary, when a letter is thence addressed to a person in another country, that the date should be given thus:—April $\frac{1}{13}$ or $\frac{\text{June } 26}{\text{July } 9}$; for it will be observed, the year 1800 not being considered by us as leap year, has interjected another (or twelfth) day between old and new style.

The twelve calendar or civil months were so arranged by Julius Cæsar, while reforming the calendar, that the odd months—the first, third, fifth, and so on, should contain 31 days, and the even numbers 30 days, except in the case of February, which was to have 30 only in what has been improperly termed leap year, while on other years it was assigned 29 days only; a number which it retained till Augustus Cæsar deprived it of another day. How the changes were effected is shown in a prior chapter on "The Months."

LANGUAGE: ITS USE AND MISUSE.

The grand debate,
The popular harangue, the tart reply,
The logic, and the wisdom, and the wit,
And the loud laugh—I long to know them all.
—COWPER.

PICKINGS FOR STUDENTS.

There are said to be 2,754 languages.

Rhetoric, as an art, dates from 466 B. C.

A poet terms words "the soul's embassadors."

The rude speech of fishwives is called Billingsgate.

Lyric poetry has to do with the feelings and emotions.

A terse and poetical expression of an idea is an Epigram.

Leibnitz was first to reduce philology to a science of induction.

Appolonius of Alexandria was called the Prince of Grammarians.

In the Turkish language are to be met the longest compound words.

When we express a principle very concisely we employ an Aphorism.

The tales, ballads and legends of a people constitute its Folk-lore.

A pithy saying that conveys an important truth, is called an Apophthegm.

Rhetoric is the theory and practice of eloquence, whether spoken or written.

Language is claimed to have begun in the use of cries to help out gestures.

A Hellenist is one that is versed in the Greek languages and literature.

One verse in the Bible (Ezra vii. 21) will be found to contain all the letters of our alphabet.

Orientals aver that the serpent who tempted Eve spoke Arabic, "the most suasive of tongues."

The Italian, Spanish, French and other tongues derived mainly from Latin, are called the Romance languages.

It was not Talleyrand, but Montron, the diplomat, who said: "Language is given to man to conceal his thoughts."

Acrostic is a term for any given number of verses, the first letters of which in their order form a given word, phrase or sentence.

Didactic poetry is that class which aims, or seems to aim, at instruction as its object, making pleasure entirely subservient thereto.

The combined ingenuity of the world has not surpassed this sentence as containing all the letters and most only once: "Quiz, Jack; thy frowns vex.—G. D. PLUMB."

If the riches of the Indies, says Fenelon, or the crowns of all the kingdoms of Europe, were laid at my feet in exchange for my love for reading, I would spurn them all.

The ancient Scandinavians employed an alphabet of letters formed principally of straight lines, which has been called Runic from an Icelandic word *runa*, meaning a furrow or line.

Charles V used to say that he would talk Spanish to the gods, Italian to ladies, French to men, German to soldiers, English to geese, Hungarian to horses, and Bohemian to the devil.

Cipher as a method of secret writing was known as early as the time of Julius Cæsar. It consisted of a transposition of the letters of the alphabet. The most complicated ciphers known can be translated by modern experts.

Taboo is a Polynesian word, signifying something set apart, either as sacred or accursed, clean or unclean, but in any case as a thing forbidden. All the law and morality of the Polynesians had their origin in the taboo or system of religious prohibitions.

The writing in use among the Arabs between the sixth and eleventh centuries, and, supposed to have been invented at Cufa, is called Cufic writing. Cufic coins are those of the Mohammedan sovereigns and are of great use in throwing light on the history of the East.

The longest words in the language, taken from the "Century Dictionary:" Suticonstitutionalist, Incomprehensibility, Philoprogenitiveness, Honorificibilitudinity, Anthropophagenarian, Disproportionableness, Velocipedestrianistical, Transubstantiationableness, Palatopharyngeolaryngeal.

The term Colophon applies to the inscription or monogram on the last page of a book, which in old times contained the author's and printer's names, date of publication, and so on. It is derived from the Greek phrase "to add a colophon," to put the finishing stroke to an engagement by a cavalry attack.

Outside of medical and technical terms the word "unexceptionableness" is, according to some lexicographers, the longest English word. "Incomprehensibility" has the same complement of letters, nineteen, but four of them are "i," and it would occupy less space in type than its sesquipedalian brother.

Americanisms are words or phrases peculiar to the United States. Many of them, however, are the renewal of old English words that have become obsolete in the mother country. Others have sprung into existence through the new conditions consequent in the rapid development of our western territory.

A sonnet is a poetic form, of Italian origin, used to express a single thought or single wave of emotion. The Petrarchan sonnet consists of fourteen lines, divided into an octave of two rhymes, and a sestet of two or three rhymes. The Shakspearian sonnet consists of six alternate rhymes clinched by a couplet.

In 1879, Johann Martin Schleyer, a Swabian pastor and latterly a teacher in Constance, invented the universal language called Volapük.

Of the vocabulary about one third is of English origin, while the Latin and the Romance languages furnish a fourth. The grammar is simplified to the utmost. The most practical disciples limit their aims to making Volapük a convenience for commercial correspondence, a kind of extended international code.

An anagram is the formation of a new word, phrase or sentence out of anothor by a transposition of the letters. To be effective the anagram must have the element of sarcasm, surprise or revelation involved. "Love to ruin" is an anagram for revolution, "sly ware" for lawyers, "a man to wield great wills" for William Ewart Gladstone.

Mac (contracted M') is a Gaelic prefix occurring frequently in Scottish names, as Macdonald, M'Lennan, and the like, meaning "son," "tribe" or "kin." It corresponds to the *son* in names of Teutonic origin, as Davidson; the *Filz* in Norman names, as Fitzherbert; the Irish *O*, as in O'Connell; and the Welsh *Map*, shortened into '*p* or '*p*, as Ap Richard, whence Prichard.

We find in a historical incident the true etymology of the term Laconisms. When Philip of Macedon wrote to the Spartan magistrates, "If I enter Laconia I will level Lacedæmon to the ground," the ephors wrote back the single word "If." Similarly, in 1490, O'Neill wrote to O'Donnel, "Send me the tribute, or else—;" to which O'Donnel returned answer, "I owe none, and if—."

The Brogue (Irish and Gaelic *brog*) is a light shoe formed of one piece of hide or half-tanned leather, gathered round the ankle, which was formerly much in use among the native Irish and the Scottish Highlanders, and of which there were different varieties. Whence comes the term brogue signifying the peculiar pronounciation of English that distinguishes natives of Ireland.

An allegory is a "prolonged metaphor" or figurative representation conveying some moral or teaching. Of very early origin it is especially common among the Oriental people. It is of frequent occurrence in the Bible. In English literature there are many fine examples, among the most familiar of which are Bunyan's "Pilgrim's Progress" and Spenser's "Faerie Queen." The latter is a double allegory.

Among the puzzle-pastimes based on the alphabet a logogram is simply a complicated or multiplied form of the anagram, where the puzzle-monger, instead of contenting himself with the formation of a single new word or sentence out of the old by the transposition of the letters, racks his brain to discover all the words that may be extracted from the whole or from any portion of the letters, and throws the whole into a series of verses in which synonymic expressions for these words must be used.

Sanscrit is one of the Indo-European group of languages, intimately connected with the Persian, Greek, Latin, Teutonic, Slavonian and Celtic languages. It is the classical language of the Hindus, and the parent of all the modern Aryan languages of India. It ceased to be a spoken language about the second century B. C. Sanscrit literature, which extends back to at least 1,500 B. C. and is very voluminous, was introduced to the western world by Sir Wm. Jones, who founded the Asiatic Society in Calcutta in 1784.

Our familiar and valuable friends, the letters of the common alphabet, are said to have originated in the hieroglyphic symbols of Egypt,

legendarily ascribed to Memnon, 1822 B. C. From the Egyptians and Assyrians the Phœnicians introduced the chief letters of the present alphabet. Cadmus is traditionally stated (149 B. C.) to have brought into Greece the Phœnician letters which ultimately became the basis of the present alphabet. The number of letters composing the alphabet varies among different nations. The true theory of an alphabet requires a single sign to represent each single sound.

When the Ephraimites, after their defeat by Jephthah, tried to pass the Jordan, a guard stationed on the banks of the river tested everyone who came to the ford by asking him to pronounce the word "Shibboleth" which the men of Ephraim called *sibboleth*. Everyone who said "sibboleth" was immediately cut down by the guard, and there fell in one day, 42,000 Ephraimites (Judges xii: 1-6). Hence arises the present meaning of the word as the test, criterion or watchword of a party.

To "speak for bunkum" is a common expression indicating bombast or mere show. The phrase no doubt owes it origin to the perseverance of an old mountainer, Felix Walter by name, representative in Congress from North Carolina, in whose district was the county of Buncombe. It was at the close of the famous debate on the Missouri Compromise. Mr. Walker rose to speak. The House was impatient and frequent calls for the "Question" were heard. Mr. Walker insisted, saying that he was bound to "speak for Bumcombe."

The sixteen Greek letters, said to have been introduced into Thebes (in Bœotia) by Cadmus, son of Agenor, king of Phœnicia, are called the Cadmean letters. The letters are a, b, g, d, ĕ, i, k, l, m, n, o, p, r, s, t, u. These letters were subsequently increased by eight Ionic letters, z, ē, th, x, ph, eh, ch, ps, and ō. Simonîêds of Cos is credited with the four letters th, z, ph, ch, and Epicharmos the Sicilian, with the four letters x, ē, ps, ō. The Ionians were the first to employ all the twenty-four letters, whence the eight added were called Ionic letters.

We use the term "bull" to describe a ridiculous blunder in speech implying a contradiction. Bulls in their best form are usually alleged to be an especial prerogative of Irishmen—at least it is certain that the best examples have come from Ireland. For instance, on a rustic Irishman being asked what a bull was he naively replied: "Whin ye see five cows lyin' down in a field the wan standin' up is a bull." The following sentence is also a good illustration: "All along the untrodden paths of the past we perceive the footprints of an unseen hand."

Critics employ the term Bathos to designate a ludicrous descent from the elevated to the commonplace in writing or speech, or a sinking below the ordinary level of thought in a ridiculous effort to aspire. It is of the essence of bathos that he who is guilty of it should be unconscious of his fall, and while groveling on the earth, should imagine that he is still cleaving the heavens. A good example of bathos is the well-known couplet:

"And thou, Dalhousie, thou great god of war,
Lieutenant-general to the Earl of Mar!"

or the well-known encomium of the celebrated Boyle: "Robert Boyle was a great man, a very great man; he was father of chemistry and brother to the Earl of Cork."

A dictionary is a book containing the words of a language alphabetically arranged, with their definitions and significations set forth more or less fully. It differs from a mere list or index, in that it contains

explanations about each word included within its scope, except where it is more convenient, by a cross-reference, to refer the reader for a part or the whole of the account of one word to what is said under some other word. There are several other terms that are used synonymously, or nearly so, with dictionary. The Greek word "lexicon" is in common use for a dictionary of languages.

CHIEF LANGUAGES OF THE WORLD.

Some estimate that there are over three thousand languages in the world; and above a thousand different religions, including what are called "sects." English is spoken by above one hundred and thirty millions of the human race; German by one hundred millions; Russian by seventy millions; French by forty-five millions; Spanish by forty millions; Italian by thirty millions, and Portuguese by thirteen millions.

English is spoken by four million Canadians; over three and a half million West Indians; three million Australians; one million East Indians; thirty-eight millions in the British Isles, and sixty-three millions in America; besides Africa, Jamaica, etc.

German is spoken by two millions in the United States and Canada; two millions in Switzerland; forty thousand Belgiums; forty-six millions in the German empire, and ten millions in the Austro-Hungarian empire.

French is spoken by two and a quarter million Belgians; one million in the United States and Canada; one million in Algiers, India and Africa; six hundred thousand Swiss; six hundred thousand in Hayti; two hundred thousand in Alsace-Lorraine; and thirty-eight millions in France.

HOW TO SPEAK CORRECTLY.

There are several kinds of errors in speaking. The most objectionable are those in which words are employed that are unsuitable to convey the meaning intended. Thus, a person wishing to express his intention of going to a given place says, "I *propose* going," when, in fact, he *purposes* going. The following affords an amusing illustration of this class of error: A venerable matron was speaking of her son, who, she said, was quite stage-struck. "In fact," remarked the old lady, "he is going to a *premalure* performance this evening!" Considering that most *amateur* performances are *premature*, it cannot be said that this word was altogether misapplied; though, evidently, the maternal intention was to convey a very different meaning.

Other errors arise from the substitution of sounds similar to the words that should be employed; that is, spurios words instead of genuine ones. Thus, some people say "*renumerative*" when they mean "*remunerative.*" A nurse, recommending her mistress to have a *perambulator* for her child, advised her to purchase a *preamputator!*

Other errors are occasioned by imperfect knowledge of the English grammar; thus, many people say: "Between you and I," instead of "Between you and *me.*" And there are numerous other departures from the rules of grammar, which will be pointed out hereafter.

MISUSE OF THE ADJECTIVE: "What *beautiful* butter!" "What a *nice* landscape!" They should say: "What a *beautiful landscape!*" "What *nice butter!*" Again errors are frequently occasioned by the following causes:

MISPRONUNCIATION OF WORDS: Many persons say *pronounciation* instead of *pronunciation;* others say pro-nun-ce-a-shun, instead of pro-nun-she-a-shun.

MISDIVISION OF WORDS AND SYLLABLES: This defect makes the words *an ambassador* sound like *a nambassador*, or *an adder* like *a nadder*.

IMPERFECT ENUNCIATION, as when a person says *hebben* for *heaven*, *ebber* for *ever*, *jocholate* for *chocolate*.

To correct these errors by a systematic course of study would involve a closer application than most persons could afford, but the simple and concise rules and hints here given, founded upon usage and the authority of scholars, will be of great assistance to inquirers.

Who and *whom* are used in relation to persons, and *which* in relation to things. But it was once common to say, "the man *which*." This should now be avoided. It is now usual to say, "Our Father *who* art in heaven;" instead of "*which* art in heaven."

Whose is, however, sometimes applied to things as well as persons. We may therefore say, "The country *whose* inhabitants are free."

Thou is employed in solemn discourse and *you* in common language. *Ye* (plural) is also used in serious addresses, and *you* in familiar language.

The uses of the word *it* are various, and very perplexing to the uneducated. It is not only used to imply persons, but things, and even ideas, and therefore in speaking or writing, its assistance is constantly required. The perplexity respecting this word arises from the fact that in using it in the construction of a long sentence, sufficient care is not taken to insure that when *it* is employed it really points out or refers to the object intended. For instance, "It was raining when John set out in his cart to go to market, and he was delayed so long that it was over before he arrived." Now what is to be understood by this sentence? Was the rain over? or the market? Either or both might be inferred from the construction of the sentence, which, therefore, should be written thus: "It was raining when John set out in his cart to go to market, and he was delayed so long that the market was over before he arrived."

Rule.—After writing a sentence always look through it, and see that wherever the word *it* is employed, it refers to or carries the mind back to the object which it is intended to point out.

The general distinction between *this* and *that* may be thus defined: *this* denotes an object present or near, in time or place; *that* something which is absent.

These refers, in the same manner, to present objects, while *those* refers to things that are remote.

Who changes, under certain conditions, into *whose* and *whom;* but *that* and *which* always remain the same, with the exception of the possessive case, as noted above.

That may be applied to nouns or subjects of all sorts; as the *girl that* went to school, the *dog that* bit me, the *opinion that* he entertains.

The misuse of these pronouns gives rise to more errors in speaking and writing than any other cause.

When you wish to distinguish between two or more persons, say, "*Which* is the happy man?" not *who*—"*Which* of those ladies do you admire?"

Instead of "*Whom* do you think him to be?" say, "*Who* do you think him to be?"

Whom should I see?
To *whom* do you speak?
Who said so?
Who gave it to you?
Of *whom* did you procure them?
Who was he?
Who do men say that *I* am?

Self should never be added to *his, their, mine, or thine.*

Each is used to denote *every* individual of a number.

Every denotes *all* the individuals of a number.

Either and *or* denote an alternative: "I will take *either* road, at your pleasure," "I will take this *or* that."

Neither means *not either;* and *nor* means *not the other.*

Either is sometimes used for *each*—"Two thieves were crucified, on *either* side one."

"Let *each* esteem others as good as themselves," should be, "Let *each* esteem others as good as *himself.*"

"There are bodies *each* of which *are* so small," should be, "each of which *is* so small."

Do not use double superlatives, such as *most straightest, most highest, most finest.*

The term *worser* has gone out of use; but *lesser* is still retained.

The use of such words as *chiefest, extremest, etc.*, has become obsolete, because they do not give any superior force to the meanings of the primary words, *chief, extreme, etc.*

Such expressions as *more impossible, more indispensable, more universal, more uncontrollable, more unlimited*, etc., are objectionable, as they really enfeeble the meaning which it is the object of the speaker or writer to strengthen. For instance, *impossible* gains no strength by rendering it *more* impossible. This class of error is common with persons who say "A *great large* house," "A *great big* animal," "A *little small* foot," "A *tiny little* hand."

Hence, whence and *thence*, denoting departure, etc., may be used without the word *from.* The idea of *from* is included in the word *whence* —therefore it is unnecessary to say, "*From whence.*"

Hither, thither and *whither*, denoting to a place, have generally been superseded by *here, there* and *where.* But there is no good reason why they should not be employed. If, however, they are used, it is unnecessary to add the word *to*, because that is implied—"*Whither* are you going?" "*Where* are you going?" Each of these sentences is complete.

Two *negatives* destroy each other, and produce an affirmative. "*Nor* did he *not* observe them," conveys the idea that he *did* observe them.

But negative assertions are allowable. "His manners are not impolite," which implies that his manners are in some degree marked by politeness.

Instead of "Let you and *I*," say "Let you and me."

Instead of "I am not so tall as *him*," say "I am not so tall as he."

When asked "Who is there?" do not answer "*Me*," but "I."

Instead of "For you and *I*," say "For you and me."

Instead of "*Says I*," say "I said."

Instead of "You are taller than *me*," say "You are taller than I."

Instead of "I *ain't*," or "I *arn't*," say "I am not."

Instead of "Whether I be present or no," say "Whether I be present or not."

For "Not that I know on," say "Not that I know."

Instead of "*Was* I to do so," say "Were I to do so."

Instead of "I would do the same if I *was him*," say "I would do the same if I were he."

Though "I *had as lief* go myself," is not incorrect, some prefer "I would as soon go myself," or "I would rather go myself."

It is better to say "Six weeks ago," than "Six weeks back."

It is better to say "Since which time," than "Since when."

It is better to say "I repeated it," than "I said so over again."

Instead of "He was too young to *have* suffered much," say "He was too young to suffer much."

Instead of "*Less* friends," say "Fewer friends." Less refers to quantity.

Instead of "A *quantity* of people," say "A number of people."

Instead of "*As* far as I can see," say "So far as I can see."

Instead of "A *new pair* of gloves," say "A pair of new gloves."

Instead of "I hope you'll think nothing *on* it," say "I hope you'll think nothing of it."

Instead of "Restore it *back* to me," say "Restore it to me."

Instead of "I suspect the *veracity* of his story," say "I doubt the truth of his story."

Instead of "I seldom *or ever* see him," say "I seldom see him."

Instead of "I expected *to have* found him," say "I expected to find him."

Instead of "Who *learns* you music?" say "Who teaches you music?"

Instead of I *never* sing *whenever* I can help it," say "I never sing when I can help it."

Instead of "Before I do that I must *first* ask leave," say "Before I do that I must ask leave."

Instead of saying "The *observation* of the rule," say "The observance of the rule."

Instead of "A man *of* eighty years of age," say "A man eighty years old."

Instead of "Here *lays* his honored head," say "Here lies his honored head."

Instead of "He died from *negligence*," say "He died through neglect," or "in consequence of neglect."

Instead of "Apples are plenty," say "Apples are plentiful."

Instead of "The *latter end* of the year," say "The end, or the close of the year."

Instead of "The *then* government," say "The government of that age, or century, or year or time."

Instead of "A *couple* of chairs," say "Two chairs."

Instead of "They are *united together* in the bonds of matrimony," say "They are united in matrimony," or "They are married."

Instead of "We travel *slow*," say "We travel slowly."

Instead of "He plunged *down* into the river," say "He plunged into the river."

Instead of "He jumped *from off of* the scaffolding," say "He jumped off the scaffolding."

Instead of "He came the last *of all*," say "He came last."

Instead of "*universal*," with reference to things that have any limit, say "general;" "generally approved," instead of "universally approved;" "generally beloved," instead of "universally beloved."

Instead of "They ruined *one another*," say "They ruined each other."

Instead of "If *in case* I succeed," say "If I succeed."

Instead of "A *large enough* room," say "A room large enough."

Instead of "I am slight in comparison *to* you," say "I am slight in comparison with you."

Instead of "I went *for* to see him," say "I went to see him."

Instead of "The cake is all *eat up*," say "The cake is all eaten."

Instead of "The book fell *on* the floor," say "The book fell to the floor."

Instead of "His opinions are *approved of* by all," say "His opinions are approved by all."

Instead of "I will add *one more* argument," say "I will add one argument more," or "another argument."

Instead of "He stands *six foot* high," say "He measures six feet," or "His height is six feet."

Say "The first two," "and the last two," instead of "the *two first*," "the two last."

Instead of "*Except* I am prevented," say "Unless I am prevented."

Instead of "It grieves me to *see* you," say "I am grieved to see you."

Instead of "Give me *them* papers," say "Give me those papers."

Instead of "*Those* papers I hold in my hand," say "These papers I hold in my hand."

Instead of "I could scarcely imagine but *what*," say "I could scarcely imagine but that."

Instead of "He was a man *notorious* for his benevolence," say "He was noted for his benevolence."

Instead of "She was a woman *celebrated* for her crimes," say "She was notorious on account of her crimes."

Instead of "What may your name be?" say "What is your name?"

Instead of "I lifted it *up*," say "I lifted it."

Instead of "It is *equally of the same* value," say "It is of the same value," or "equal value."

Instead of "I knew it *previous* to your telling me," say "I knew it previously to your telling me."

Instead of "You *was* out when I called," say "You were out when I called."

Instead of "I thought I should *have won* this game," say "I thought I should win this game."

Instead of "*This* much is certain," say, "Thus much is certain," or "So much is certain."

Instead of "Put your watch *in* your pocket," say "Put your watch into your pocket."

Instead of "He has *got* riches," say "He has riches."

Instead of "Will you *set* down?" say "Will you sit down?"

Instead of "No *thankee*," say "No, thank you."

Instead of "I cannot do it without *farther* means," say "I cannot do it without further means."

Instead of "No sooner *but*," or "No other *but*," say "than."

Instead of "*Nobody else* but her," say "Nobody but her."

Instead of "He fell *down* from the balloon," say "He fell from the balloon."

Instead of "He rose *up* from the ground," say "He rose from the ground."

Instead of "*These* kind of oranges *are* not good," say "This kind of oranges is not good."

Instead of "Somehow or *another*," say "Somehow or other."

Instead of "*Will* I give you some more tea?" say "Shall I give you some more tea?"

Instead of "Oh, dear! what *will* I do?" say "What shall I do?"

Instead of "To be *given away gratis*," say "To be given away."

Instead of "Will you enter in?" say "Will you enter?"

Instead of "*This* three days or more," say "These three days or more."

Instead of "He is a bad *grammarian*," say "He is not a grammarian."

Instead of "We *accuse him for*," say "We accuse him of."

Instead of We *acquit* him *from*," say "We acquit him of."

Instead of "I am averse *from* that," say "I am averse to that."

Instead of "I confide *on* you," say "I confide in you."

Instead of "As soon *as ever*," say "As soon as."

Instead of "The *very best*," or "The *very worst*," say "The best, or the worst."

Avoid such phrases as "No great shakes," "Nothing to boast of," "Down in my boots," "Suffering from the blues." All such sentences indicate vulgarity.

Instead of "No one *hasn't* called," say "No one has called."

Instead of "You have a *right* to pay me," say "It is right that you should pay me."

Instead of "I am going *over* the bridge," say "I am going across the bridge."

Instead of "I *should just* think I could," say "I think I can."

Instead of "There has been a *good deal*," say "There has been much."

Instead of saying, "The effort you are making *for* meeting the bill," say "The effort you are making to meet the bill."

To say "Do *not* give him *no more* of your money," is equivalent to saying "Give him some of your money." Say "Do not give him *any* of your money."

Instead of saying "They are not what nature *designed* them," say "They are not what nature designed them to be."

Instead of saying "I had not the pleasure of hearing his sentiments when I wrote the letter," say "I had not the pleasure of having heard," etc.

Instead of "The quality of the apples *were* good," say "The quality of the apples was good."

Instead of "The want of learning, courage and energy *are* more visible," say "Is more visible."

Instead of "We die *for* want," say "We die of want."

Instead of "He died *by* fever," say "He died of fever."

Instead of "I *enjoy* bad health," say "My health is not good."

Instead of "*Either* of the three," say "Any one of the three."

Instead of "Better *nor* that," say "Better than that."

Instead of "We often think *on* you," say "We often think of you."

Instead of "Mine is *so* good as yours," say "Mine is as good as yours."

Instead of "This town is not *as* large as we thought," say "This town is not so large as we thought."

Instead of "*Because* why?" say "Why?"

Instead of "That *there* boy," say "That boy."

Instead of "That horse is not *much worth*," say "The horse is not worth much."

Instead of "The *subject-matter* of debate," say "The subject of debate."

Instead of saying "When he *was* come back," say "When he had come back."

Instead of saying "His health has been *shook*," say "His health has been shaken.'

Instead of "It was *spoke* in my presence," say "It was spoken in my presence."

Instead of "*Very* right," or "*Very* wrong," say "Right," or "Wrong."

Instead of "The *mortgageor* paid him the money," say "The mortgagee paid him the money," the mortgagee lends; the mortgageor borrows."

Instead of "I *took you to be* another person," say "I mistook you for another person."

Instead of "On *either* side of the river," say "On each side of the river."

Instead of "*There's* fifty," say "There are fifty."

Instead of "The *best* of the two," say "The better of the two."

Instead of "My clothes have *become too sma l* for me," say "I have grown too stout for my clothes."

Instead of "Two *spoonsful* of physic," say "Two spoonfuls of physic."

Instead of "She said, says she," say "She said."

Avoid such phrases as "I said, says I," "Thinks I to myself," etc.

Instead of "I don't think so," say "I think not."

Instead of "He was in *eminent* danger," say "He was in *imminent* danger."

Instead of "The weather is *hot*," say "The weather is very warm."

Instead of "I *sweat*," say "I perspire."

Instead of "I *only* want two dollars," say "I want only two dollars."

Instead of "Whatsomever," say "Whatever," or "Whatsoever."

Avoid such exclamations as "God bless me!" "God deliver me!" "By Gosh!" "My Lord!" "Upon my soul!" etc., which are vulgar on the one hand, and savor of impiety on the other, for—"Thou shalt not take the name of the Lord thy God in vain."

THE ART OF LETTER-WRITING.

A business letter should be clear, explicit and concise.

Figures should be written out, except dates; sums of money should be both in writing and figures.

Copies of all business letters should be kept.

When you receive a letter containing money it should be immediately counted and the amount marked on the top margin.

Letters to a stranger about one's own personal affairs, requesting answer, should always inclose a stamp.

Short sentences are preferable to long ones.

Letters requiring an answer should have prompt attention.

Never write a letter while under excitement or when in an unpleasant humor.

Never write an anonymous letter.

Do not fill your letter with repetitions and apologies.

Avoid writing with a pencil. Use black ink. Blue or violet may be used, but black is better.

In acknowledging receipt of a letter always mention date.

Note, packet or letter size should be used. It is unbusiness-like and very poor taste to use foolscap or mere scraps.

If single sheets are used they should be carefully paged. Business letters should be written on but one side of the sheet.

A letter sheet should be folded from bottom upward. Bring lower edge near the top so as to make the length a trifle shorter than the envelope, then fold twice the other way. The folded sheet should be just slightly smaller than the envelope.

If note sheet, fold twice from bottom upward. If envelope is nearly square, single fold of note sheet is sufficient.

Envelopes, like the paper, should be white, and of corresponding size and quality. It is poor taste to use colored paper, or anything but black ink.

The postage stamp should be placed at the upper right hand corner.

The address should be so plainly written that no possible mistake could be made either in name or address. It is unnecessary to add the letters P. O. after the name of the place. When the letter reaches the town it is not likely to go to the court house or jail. Letters of introduction should bear upon envelope the name and address of the person to whom sent, also the words in the lower left hand corner, "Introducing Mr. ——.

PUNCTUATION AS IT SHOULD BE.

A period (.) after every declarative and every imperative sentence; as, It is true. Do right.

A period after every abbreviation; as, Dr., Mr., Capt.

An interrogation point (?) after every question.

The exclamation point (!) after exclamations; as, Alas! Oh, how lovely!

Quotation marks (" ") enclose quoted expressions; as, Socrates said: "I believe the soul is immortal."

A colon (:) is used between parts of a sentence that are subdivided by semicolons.

A colon is used before a quotation, enumeration, or observation, that is introduced by *as follows*, *the following*, or any similar expression; as, Send me the following: 10 doz. "Armstrong's Treasury."

A semicolon (;) between parts that are subdivided by commas.

The semicolon is used also between clauses or members that are disconnected in sense; as, Man grows old; he passes away; all is uncertain. When as, namely, that is, is used to introduce an example or enumeration, a semicolon is put before it and a comma after it; as, The night was cold; that is, for the time of year.

A comma (,) is used to set off co-ordinate clauses, and subordinate clauses not restrictive; as, Good deeds are never lost, though sometimes forgotten.

A comma is used to set off transposed phrases and clauses; as, "When the wicked entice thee, consent thou not."

A comma is used to set off interposed words, phrases and clauses; as, Let us, if we can, make others happy.

A comma is used between similar or repeated words or phrases; as, The sky, the water, the trees, were illumined with sunlight.

A comma is used to mark an ellipsis, or the omission of a verb or other important word.

A comma is used to set off a short quotation informally introduced; as, Who said, "The good die young"?

A comma is used whenever necessary to prevent ambiguity.

The marks of parenthesis ( ) are used to enclose an interpolation where such interpolation is by the writer or speaker of the sentence in which it occurs. Interpolations by an editor or by anyone other than the author of the sentence, should be inclosed in brackets, [ ].

Dashes (—) may be used to set off a parenthetical expression, also to denote an interruption or a sudden change of thought or a significant pause.

THE USE OF CAPITALS.

1. Every entire sentence should begin with a capital.
2. Proper names, and adjectives derived from these, should begin with a capital.
3. All appellations of the Deity should begin with a capital.
4. Official and honorary titles begin with a capital.
5. Every line of poetry should begin with a capital.
6. Titles of books and the heads of their chapters and divisions are printed in capitals.
7. The pronoun I, and the exclamation, O, are always capitals.
8. The days of the week, and the months of the year, begin with capitals.
9. Every quotation should begin with a capital letter.
10. Names of religious denominations begin with capitals.
11. In preparing accounts, each item should begin with a capital.
12. Any word of special importance may begin with a capital.

ANALYSIS OF VOLAPUK.

Numerous efforts have been made for two centuries past to found a universal language, but these have all seemed to lack some important particular of success. The most recent attempt in this line is much more promising than any which has preceded it. Volapuk is the invention of the Rev. Dr. Johan Martin Schleyer, of Baden, Germany, an accomplished linguistic student. He can speak and write, it is said, twenty-eight languages. He had been working upon his universal language scheme for some time when in 1879 he announced it, and he had so far perfected the plan of it in 1880 as to publish a pamphlet concerning it. The name is from vola, of the world, and puk, language. It is founded on the model of the Aryan tongues, the signs representing letters and words, not ideas; and all the root words, or nearly all, are taken from living modern tongues, the English being used to a much greater extent than any other language. The Roman alphabet is used, with some German dotted letters, and the continental sounds are given to all letters. All words are phonetically spelled. The Arabic numerals are used, and the names of the numbers are indicated by the use of the vowels in regular order. All plurals are formed in "s." All verbs are regular, and there is only one conjugation. Tenses are shown by vowels before the verbs; preceding these vowels by "p" gives the passive voice. The per-

sonal pronoun placed after the root shows the person. One advantage of this language is that it can be learned very quickly. It is estimated that over 10,000 persons in Europe have mastered it, and it has been tried to some extent in this country also. If it could be adopted in commercial transactions between nations speaking different languages it would, no doubt, prove a very great advantage as well as an economy.

THE MEANING OF CHRISTIAN NAMES.

To trace the origin of names is always a pleasing and interesting task. We have prepared for our readers the subjoined list of Christian or first names of men and women:

CHRISTIAN NAMES OF MEN.

Aaron, *Hebrew*, a mountain, a loft.
Abel, *Hebrew*, vanity.
Abraham, *Hebrew*, the father of many.
Absalom, *Hebrew*, the father of peace.
Adam, *Hebrew*, red earth.
Adolphus, *Saxon*, happiness and help.
Adrian, *Latin*, one who helps.
Alan, *Celtic*, harmony; or *Slavonic*, a hound.
Albert, *Saxon*, all bright.
Alexander, *Greek*, a helper of men.
Alfred, *Saxon*, all peace.
Alonzo, form of Alphonso, *q. v.*
Alphonso, *German*, ready or willing.
Ambrose, *Greek*, immortal.
Amos, *Hebrew*, a burden.
Andrew, *Greek*, courageous.
Anthony, *Latin*, flourishing.
Archibald, *German*, a bold observer.
Arnold, *German*, a maintainer of honor.
Arthur, *British*, a strong man.
Augustus, } *Latin*, venerable, grand.
Augustin, }
Baldwin, *German*, a bold winner.
Bardulph, *German*, a famous helper.
Barnaby, *Hebrew*, a prophet's son.
Bartholomew, *Hebrew*, the son of him who made the waters to rise.
Beaumont, *French*, a pretty mount.
Bede, *Saxon*, prayer.
Benjamin, *Hebrew*, the son of a right hand.
Bennet, *Latin*, blessed.
Bernard, *German*, bear's heart.
Bertram, *German*, fair, illustrious.
Bertrand, *German*, bright raven.
Boniface, *Latin*, a well doer.
Brian, *French*, having a thundering voice.
Cadwallader, *British*, valiant in war.
Cæsar, *Latin*, adorned with hair.
Caleb, *Hebrew*, a dog.
Cecil, *Latin*, dim-sighted.
Charles, *German*, noble-spirited.
Christopher, *Greek*, bearing Christ.
Clement, *Latin*, mild tempered.
Conrad, *German*, able counsel.
Constantine, *Latin*, resolute.
Cornelius, *Latin*, meaning uncertain.
Crispin, *Latin*, having curled locks.
Cuthbert, *Saxon*, known famously.
Dan, *Hebrew*, judgment.
Daniel, *Hebrew*, God is judge.
David, *Hebrew*, well-beloved.
Denis, *Greek*, belonging to the God of wine.
Douglas, *Gaelic*, dark gray.
Duncan, *Saxon*, brown chief.
Dunstan, *Saxon*, most high.
Edgar, *Saxon*, happy honor.
Edmund, *Saxon*, happy peace.
Edward, *Saxon*, happy keeper.
Edwin, *Saxon*, happy conqueror.
Egbert, *Saxon*, ever bright.
Elijah, *Hebrew*, God the Lord.
Elisha, *Hebrew*, the salvation of God.
Emmanuel, *Hebrew*, God with us.
Enoch, *Hebrew*, dedicated.
Ephraim, *Hebrew*, fruitful.
Erasmus, *Greek*, lovely, worthy to be loved.
Ernest, *Greek*, earnest, serious.
Esau, *Hebrew*, hairy.
Eugene, *Greek*, noble, descended.
Eustace, *Greek*, standing firm.
Evan or Ivan, *British*, the same as John.
Everard, *German*, well reported.
Ezekiel, *Hebrew*, the strength of God.
Felix, *Latin*, happy.
Ferdinand, *German*, pure peace.
Fergus, *Saxon*, manly strength.
Francis, *German*, free.
Frederic, *German*, rich peace.
Gabriel, *Hebrew*, the strength of God.
Goeffrey, *German*, joyful.
George, *Greek*, a husbandman.
Gerard, *Saxon*, strong with a spear.
Gideon, *Hebrew*, a breaker.
Gilbert, *Saxon*, bright as gold.
Giles, *Greek*, a little goat.
Godard, *German*, a godly disposition.
Godfrey, *German*, God's peace.
Godwin, *German*, victorious in God.
Griffith, *British*, having great faith.
Guy, *French*, a leader.
Hannibal, *Punic*, a gracious lord.
Harold, *Saxon*, a champion.
Hector, *Greek*, a stout defender.
Henry, *German*, a rich lord.
Herbert, *German*, a bright lord.
Hercules, *Greek*, the glory of Hera or Juno.
Hezekiah, *Hebrew*, cleaving to the Lord.
Horace, *Latin*, meaning uncertain.
Horatio, *Italian*, worthy to be beheld.
Howell, *British*, sound or whole.
Hubert, *German*, a bright color.
Hugh, *Dutch*, high, lofty.
Humphrey, *German*, domestic peace.
Ignatius, *Latin*, fiery.
Ingram, *German*, of angelic purity.

Isaac, *Hebrew*, laughter.
Jabez, *Hebrew*, one who causes pain.
Jacob, *Hebrew*, a supplanter.
James or Jacques, beguiling.
Joab, *Hebrew*, Fatherhood.
Job, *Hebrew*, sorrowing.
Joel, *Hebrew*, acquiescing.
John, *Hebrew*, the grace of the Lord.
Jonah, *Hebrew*, a dove.
Jonathan, *Hebrew*, the gift of the Lord.
Joscelin, *German*, just.
Joseph, *Hebrew*, addition.
Joshua, *Hebrew*, a Savior.
Josiah or Josias, *Hebrew*, the fire of the Lord.
Julius, *Latin*, soft hair.
Lambert, *Saxon*, a fair lamb.
Lancelot, *Spanish*, a little lance.
Laurence, *Latin*, crowned with laurels.
Lazarus, *Hebrew*, destitute of help.
Leonard, *German*, like a lion.
Leopold, *German*, defending the people.
Lewis or Louis, *French*, the defender of the people.
Lionel, *Latin*, a little lion.
Llewellin, *British*, like a lion.
Llewellyn, *Celtic*, lightning.
Lucius, *Latin*, shining.
Luke, *Greek*, a wood or grove.
Manfred, *German*, great peace.
Mark, *Latin*, a hammer.
Martin, *Latin*, martial.
Matthew, *Hebrew*, a gift or present.
Maurice, *Latin*, sprung of a Moor.
Meredith, *British*, the roaring of the sea.
Michael, *Hebrew*, Who is like God?
Morgan, *British*, a mariner.
Moses, *Hebrew*, drawn out.
Nathaniel, *Hebrew*, the gift of God.
Neal, *French*, somewhat black.
Nicholas, *Greek*, victorious over the people.
Noel, *French*, belonging to one's nativity.
Norman, *French*, one born in Normandy.
Obadiah, *Hebrew*, the servant of the Lord.
Oliver, *Latin*, an olive.
Orlando, *Italian*, counsel for the land.
Orson, *Latin*, a bear.
Osmund, *Saxon*, house peace.
Oswald, *Saxon*, ruler of a house.
Owen, *British*, well descended.
Patrick, *Latin*, a nobleman.
Paul, *Latin*, small, little.
Paulinus, *Latin*, little Paul.
Percival, *French*, a place in France.
Percy, *English*, adaptation of "pierce eye."
Peregrine, *Latin*, outlandish.
Peter, *Greek*, a rock or stone.
Philip, *Greek*, a lover of horses.
Phineas, *Hebrew*, of bold countenance.
Ralph, contracted from Randolph, or Randal, or Ranulph, *Saxon*, pure help.
Raymond, *German*, quiet peace.
Reuben, *Hebrew*, the son of vision.
Reynold, *German*, a lover of purity.
Richard, *Saxon*, powerful.
Robert, *German*, famous in counsel.
Roderick, *German*, rich in fame.
Roger, *German*, strong counsel.
Roland or Rowland, *German*, counsel for the land.
Rollo, form of Roland, *q. v.*
Rufus, *Latin*, reddish.
Samson, *Hebrew*, a little son.
Samuel, *Hebrew*, heard by God.
Saul, *Hebrew*, desired.
Sebastian, *Greek*, to be reverenced.
Seth, *Hebrew*, appointed.
Silas, *Latin*, sylvan or living in the woods.
Simeon, *Hebrew*, hearing.
Simon, *Hebrew*, obedient.
Solomon, *Hebrew*, peaceable.
Stephen, *Greek*, a crown or garland.
Swithin, *Saxon*, very high.
Theobald, *Saxon*, bold over the people.
Theodore, *Greek*, the gift of God.
Theodosius, *Greek*, given of God.
Theophilus, *Greek*, a lover of God.
Thomas, *Hebrew*, a twin.
Timothy, *Greek*, a fearer of God.
Titus, *Greek*, meaning uncertain.
Toby, or Tobias, *Hebrew*, the goodness of the Lord.
Valentine, *Latin*, powerful.
Victor, *Latin*, conqueror.
Vincent, *Latin*, conquering.
Vivian, *Latin*, living.
Walter, *German*, a conqueror.
Walwin, *German*, a conqueror.
Wilfred, *Saxon*, bold and peaceful.
William, *German*, defending many.
Zaccheus, *Syriac*, innocent.
Zachary, *Hebrew*, remembering the Lord.
Zachariah, *Hebrew*, remembered of the Lord.
Zebedee, *Syriac*, having an inheritance.
Zedekiah, *Hebrew*, the justice of the Lord.

CHRISTIAN NAMES OF WOMEN.

Ada, *German*, same as Edith, *q. v.*
Adela, *German*, same as Adeline, *q. v.*
Adelaide, *German*, same as Adeline, *q. v.*
Adeline, *German*, a princess.
Agatha, *Greek*, good.
Agnes, *German*, chaste.
Alethea, *Greek*, the truth.
Althea, *Greek*, hunting.
Alice, Alicia, *German*, noble.
Alma, *Latin*, benignant.
Amabel, *Latin*, lovable.
Amy, Amelia, *French*, a beloved.
Angelina, *Greek*, lovely, angelic.
Anna, or Anne, *Hebrew*, gracious.
Arabella, *Latin*, a fair altar.
Aureola, *Latin*, like gold.
Aurora, *Latin*, morning brightness.
Barbara, *Latin*, foreign or strange.
Beatrice, *Latin*, making happy.
Bella, *Italian*, beautiful.
Benedicta, *Latin*, blessed.
Bernice, *Greek*, bringing victory.
Bertha, *Greek*, bright or famous.
Bessie, *short form of* Elizabeth, *q. v.*
Blanch, *French*, fair.
Bona, *Latin*, good.
Bridget, *Irish*, shining bright
Camilla, *Latin*, attendant at a sacrifice.
Carlotta, *Italian*, same as Charlotte, *q. v.*
Caroline, *feminine of* Carolus, *the Latin of* Charles, noble spirited.
Cassandra, *Greek*, a reformer of men.

Catherine, *Greek*, pure or clean.
Cecilia, *Latin*, from Cecil.
Cecily, *a corruption of* Cecilia, *q. v.*
Charity, *Greek*, love, bounty.
Charlotte, *French*, all noble.
Chloe, *Greek*, a green herb.
Christiana, *Greek*, belonging to Christ.
Clara, *Latin*, clear or bright.
Clarissa, *Latin*, clear or bright.
Constance, *Latin*, constant.
Dagmar, *German*, joy of the Danes.
Deborah, *Hebrew*, a bee.
Diana, *Greek*, Jupiter's daughter.
Dorcas, *Greek*, a wild rose.
Dorothea or Dorothy, *Greek*, the gift of God.
Edith, *Saxon*, happiness.
Eleanor, *Saxon*, all fruitful.
Eliza, Elizabeth, *Hebrew*, the oath of God.
Ellen, *another form of* Helen, *q. v.*
Emily, *corrupted from* Amelia.
Emma, *German*, a nurse.
Esther, Hesther, *Hebrew*, secret.
Eudoia, *Greek*, prospering in the way.
Eudora, *Greek*, good gift.
Eudosia, *Greek*, good gift or well-given.
Eugenia, *French*, well-born.
Eunice, *Greek*, fair victory.
Eva, or Eve, *Hebrew*, causing life.
Fanny, *diminutive of* Frances, *q. v.*
Fenella, *Greek*, bright to look on.
Flora, *Latin*, flowers.
Florence, *Latin*, blooming, flourishing.
Frances, *German*, free.
Gertrude, *German*, all truth.
Grace, *Latin*, favor.
Hagar, *Hebrew*, a stranger.
Hadassah, *Hebrew, form of* Esther, *q. v.*
Hannah, *Hebrew*, gracious.
Harriet, *German*, head of the house.
Helen, or Helena, *Greek*, alluring.
Henrietta, *fem. and dim.* of Henry, *q. v.*
Hephzibah, *Hebrew*, my delight is in her.
Hilda, *German*, warrior maiden.
Honora, *Latin*, honorable.
Huldah, *Hebrew*, a weazel.
Isabella, *Spanish*, fair Eliza.
Jane, or Jeanne, *fem. of* John, *q. v.*
Janet, Jeanette, little Jane.
Jemima, *Hebrew*, a dove.
Joan, *Hebrew, fem. of* John, *q. v.*
Joanna, or Johanna, *form of* Joan, *q. v.*
Joyce, *French*, pleasant.
Judith, *Hebrew*, praising.
Julia, Juliana, *feminine of* Julius, *q. v.*
Katherine, *form of* Catherine, *q. v.*
Keturah, *Hebrew*, incense.
Kezsiah, *Hebrew*, cassia.
Laura, *Latin*, a laurel.
Lavinia, *Latin*, of Latium.
Letitia, *Latin*, joy or gladness.
Lilian, Lily, *Latin*, a lily.
Lois, *Greek*, better.
Louisa, *German, fem. of* Louis, *q. v.*
Lucretia, *Latin*, a chaste Roman lady.
Lucy, *Latin, feminine of* Lucius.
Lydia, *Greek*, descended from Lud.
Mabel, *Latin*, lovely or lovable.
Madeline, *form of* Magdalen, *q. v.*
Magdalen, *Syriac*, magnificent.
Margaret, *Greek*, a pearl.
Maria, Marie, *forms of* Mary, *q. v.*
Martha, *Hebrew*, bitterness.
Mary, *Hebrew*, bitter.
Matilda, *German*, a lady of honor.
Maud, *German form of* Matilda, *q. v.*
May, *Latin*, month of May, or *dim. of* Mary, *q. v.*
Mercy, *English*, compassion.
Mildred, *Saxon*, speaking mild.
Minnie, *dim. of* Margaret, *q. v.*
Naomi, *Hebrew*, alluring.
Nest, *British, the same as* Agnes.
Nicola, *Greek, feminine of* Nicholas.
Olive, Olivia, *Latin*, an olive.
Olympia, *Greek*, heavenly.
Ophelia, *Greek*, a serpent.
Parnell, or Petronilla, little Peter.
Patience, *Latin*, bearing patiently.
Paulina, *Latin, feminine of* Paulinus.
Penelope, *Greek*, a weaver.
Persis, *Greek*, destroying.
Philadelphia, *Greek*, brotherly love.
Philippa, *Greek, feminine of* Philip.
Phœbe, *Greek*, the light of life.
Phyllis, *Greek*, a green bough.
Polly, *variation of* Molly, *dim. of* Mary, *q. v.*
Priscilla, *Latin*, somewhat old.
Prudence, *Latin*, discretion.
Pysche, *Greek*, the soul.
Rachel, *Hebrew*, a lamb.
Rebecca, *Hebrew*, fat or plump.
Rhoda, *Greek*, a rose.
Rosa, or Rose, *Latin*, a rose.
Rosalie, or Rosaline, *Latin*, little Rose.
Rosalind, *Latin*, beautiful as a rose.
Rosabella, *Italian*, a fair rose.
Rosamond, *Saxon*, Rose of peace.
Roxana, *Persian*, dawn of day.
Ruth, *Hebrew*, trembling, or beauty.
Sabina, *Latin*, sprung from the Sabines.
Salome, *Hebrew*, perfect.
Sapphira, *Greek*, like a sapphire stone.
Sarah, *Hebrew*, a princess.
Selina, *Greek*, the moon.
Sibylla, *Greek*, the counsel of God.
Sophia, *Greek*, wisdom.
Sophronia, *Greek*, of a sound mind
Susan, Susanna, *Hebrew*, a lily.
Tabitha, *Syriac*, a roe.
Temperance, *Latin*, moderation
Theodosia, *Greek*, given by God
Tryphena, *Greek*, delicate.
Tryphosa, *Greek*, delicious.
Victoria, *Latin*, victory.
Vida, *Erse, feminine of* David.
Ursula, *Latin*, a she bear.
Walburga, *Saxon*, gracious.
Winifred, *Saxon*, winning peace.
Zenobia, *Greek*, life from Jupiter.

A PLIABLE LANGUAGE.

The flexibility of the English language is in no way better illustrated than by the use made of it by sportsmen in designating particular

groups of animals. The following is a list of the terms which have been applied to the various classes:

A covey of patridges.
A nide of pheasants.
A wisp of snipe.
A flight of doves or swallows.
A muster of peacocks.
A siege of herons.
A building of rooks.
A brood of grouse.
A plump of wild fowl.
A stand of plovers.
A watch of nightingales.
A clattering of cloughs.
A flock of geese.
A herd or bunch of cattle.
A bevy of quails.
A cast of hawks.
A trip of dottrell.
A swarm of bees.
A school of whales.
A shoal of herrings.
A herd of swine.
A skulk of foxes.
A pack of wolves.
A drove of oxen.
A sounder of hogs.
A troop of monkeys.
A pride of lions.
A sleuth of bears.
A gang of elk.

GUIDE TO CORRECT PRONUNCIATION.

Accent is a particular stress or force of the voice upon certain syllables or words. This mark ′ in printing denotes the syllable upon which the stress or force of the voice should be placed.

A word may have more than one accent. Take as an instance *aspiration*. In uttering this word we give a marked emphasis of the voice upon the first and third syllables, and therefore those syllables are said to be accented. The first of these accents is less distinguishable than the second, upon which we dwell longer, therefore the second accent in point of order is called the primary, or chief accent of the word.

When the full accent falls on a vowel, that vowel should have a long sound, as in *vo′cal;* but when it falls on or after a consonant, the preceding vowel has a short sound, as in *hab′it.*

To obtain a good knowledge of pronunciation, it is advisable for the reader to listen to the examples given by good speakers, and by educated persons. We learn the pronunciation of words, to a great extent, by *imitation*, just as birds acquire the notes of other birds which may be near them.

But it will be very important to bear in mind that there are many words having a double meaning or application, and that the difference of meaning is indicated by the difference of the accent. Among these words, *nouns* are distinguished from *verbs* by this means: *nouns* are mostly accented on the first syllable, and *verbs* on the last.

Noun signifies name: *nouns* are the names of persons and things, as well as of things not material and palpable, but of which we have a conception and knowledge, such as *courage, firmness, goodness, strength;* and *verbs* express *actions, movements,* etc. If the word used signifies that anything has been done, or is being done, or is, or is to be done, then that word is a *verb.*

Thus when we say that anything is "an in′sult," that word is a *noun*, and is accented on the first syllable; but when we say he did it "to insult another person," the word insult′ implies acting and becomes a *verb*, and should be accented on the last syllable.

A list of nearly all the words that are liable to similar variation is given here. It will be noticed that those in the first column, having the accent on the first syllable, are mostly nouns; and that those in the second column, which have the accent on the second and final syllable, are mostly verbs:—

Noun, etc.	*Verb, etc.*	*Noun, etc.*	*Verb, etc.*	*Noun, etc.*	*Verb, etc.*
Ab'ject	abject'	Con'trast	contrast'	In'lay	inlay'
Ab'sent	absent'	Con'verse	converse'	In'su t	insult'
Ab'stract	abstract'	Con'vert	convert'	Ob'ject	object'
Ac'cent	accent'	Con'vict	convict'	Out leap	outleap'
Af'fix	affix'	Con'voy	convoy'	Per'fect per f	ct or perfect'
As'pect	aspect'	De'crease	decrease'	Per'fume	perfume'
At'tribute	attrib'ute	Des'cant	descant'	Per'mit	permit'
Aug'ment	augment'	Des'ert	desert'	Pre fix	prefix'
Au'gust	august'	De'tail	detail'	Prem'ise	premise'
Bom'bard	bombard'	Di'gest	digest'	Pres'age	presage'
Col'league	colleague'	Dis'cord	discord'	Pres'ent	present'
Col'lect	collect'	Dis'count	discount'	Prod'uce	produce'
Com'ment	comment'	Ef flux	efflux'	Proj'ect	project'
Com'pact	compact'	Es'cort	escort'	Pro'test	protest'
Com'plot	complot'	Es'say	essay'	Reb'el	rebel'
Com'port	comport'	Ex'ile	exile'	Rec'ord	record
Com'pound	compound'	Ex'port	export'	Ref'use	refuse'
Com'press	compress'	Ex'tract	extract'	Re'tail	retail'
Con'cert	concert'	Fer'ment	ferment'	Sub'ject	subject'
Con'crete	concrete'	Fore'cast	forecast'	Su'pine	supine'
Con'duct	conduct'	Fore'taste	foretaste'	Sur'vey	survey'
Con'fine	confine'	Fre'quent	frequent'	Tor'ment	torment'
Con'flict	conflict'	Im'part	impart'	Tra'j ct	traject'
Con'serve	conserve'	Im'port	import'	Trans fer	transfer'
Con'sort	consort'	Im'press	impress'	Trans'port	transport'
Con'test	contest'	Im'print	imprint'	Un'dress	undress'
Con'text	context'	In'cense	incense'	Up cast	upcast'
Con'tract	contract	In'crease	increase'	Up'start	upstart'

RULES OF PRONUNCIATION.

C before *a*, *o*, and *u*, and in some other situations, is a close articulation, like *k*. Before *e*, *i*, and *y*, *c* is precisely equivalent to *s* in *same*, *this;* as in *cedar*, *civil*, *cypress*, *capacity*.

E final indicates that the preceding vowel is long; as in hate, mete, sire, robe, lyre, abate, recede, invite, remote, intrude.

E final indicates that *c* preceding has the sound of *s;* as in *lace*, *lance;* and that *g* preceding has the sound of *j*, as in *charge*, *page*, *challenge*.

E final in proper English words, never forms a syllable, and in the most used words, in the terminating unaccented syllable it is silent. Thus, *motive*, *genuine*, *examine*, *granite*, are pronounced *motiv*, *genuin*. *examin*, *granit*.

E final in a few words of foreign origin, forms a syllable; as *syncope*, *simile*.

E final is silent after *l* in the following terminations,—*ble*, *cle*, *dle*, *fle*, *gle*, *kle*, *ple*, *tle*, *zle;* as in *able*, *manacle*, *cradle*, *ruffle*, *mangle*, *wrinkle*, *supple*, *rattle*, *puzzle*, which are pronounced *ab'l*, *mana'cle*, *cra'dl*, *ruf'fl*, *man'gl*, *wrin'kl*, *sup'pl*, *puz'zl*.

E is usually silent in the termination *en;* as in *token*, *broken;* pronounced *tokn*, *brokn*.

OUS in the termination of adjectives and their derivatives is pronounced *us;* as in *gracious*, *pious*, *pompously*.

CE, CI, TI, before a vowel, have the sound of *sh;* as in *cetaceous*, *gracious*, *motion*, *partial*, *ingratiate:* pronounced *cetashus*, *grashus*, *moshun*, *parshal*, *ingrashiate*.

SI, after an accented vowel, is pronounced like *zh;* as in *Ephesian*, *confusion;* pronounced *Epezhan*, *confuzhon*.

GH, both in the middle and at the end of words is silent; as in *caught*, *bought*, *fright*, *nigh*, *sigh:* prounced *caut*, *baut*, *frite*, *ni*, *si*. In the following exceptions, however, *gh* is pronounced as *f:—cough*, *chough*, *clough*, *enough*, *laugh*, *rough*, *slough*, *tough*, *trough*.

When WH begins a word, the aspirate *h* precedes *w* in pronunciation: as in *what*, *whiff*, *whale;* pronounced *hwat*, *hwiff*, *hwale*, *w* having precisely the sound of *oo*, French *ou*. In the following words *w* is silent:—*who*, *whom*, *whose*, *whoop*, *whole*.

H after *r* has no sound or use; as in *rheum*, *rhyme;* pronounced *reum*, *ryme*.

H should be sounded in the middle of words; as in fore*h*ead, ab*h*or, be*h*old, ex*h*aust, in*h*abit, un*h*orse.

H should always be sounded except in the following words;—heir, herb, honest, honor, hour, humor, and humble, and all their derivatives, —such as humorously, derived from humor.

K and G are silent before *n;* as *know*, *gnaw;* pronounced *no*, *naw*

W before *r* is silent; as in *wring*, *wreath:* pronounced *ring*, *reath*.

B after *m* is silent; as in *dumb*, *numb;* pronounced *dum*, *num*.

L before *k* is silent as in *balk*, *walk*, *talk;* pronounced *bauk*, *wauk*, *tauk*.

PH has the sound of *f;* as in *philosophy;* pronounced *filosofy*.

NG has two sounds, one as in *singer*, the other as in *fin-ger*.

N after *m*, and closing a syllable, is silent; as in *hymn*, *condemn*.

P before *s* and *t* is mute; as in *psalm*, *pseudo*, *ptarmigan;* pronounced *salm*, *sudo*, *tarmigan*.

R has two sounds, one strong and vibrating, as at the beginning of words and syllables, such as *robber*, *reckon*, *error;* the other is at the terminations of the words, or when succeeded by a consonant, as *farmer*, *morn*.

There are other rules of pronunciation affecting the combinations of vowels, etc., but as they are more difficult to describe, and as they do not relate to errors which are commonly prevalent, it will suffice to give examples of them in the following list of words. When a syllable in any word in this list is printed in italics, accent or stress of voice should be laid on that syllable.

COMMON ERRORS OF SPEECH.

Again, usually pronounced a-*gen*, not as spelled.
Alien, *ale-yen*, not a-li-en.
Antipodes, an-*tip*-o-dees.
Apostle, as *a-pos'l*, without the *t*.
Arch, *arch* in compounds of our own language, as in archbishop, archduke; but *ark* in words derived from the Greek, as archaic, ar-*ka*-ik; archæology, ar-ke-*ol*-o-gy, archangel, ark-*ain*-gel; archetype, *ar*-ke-type; archiepiscopal, ar-ke-*e-pis*-co-pal; archipelago, ar-ke-*pel*-a-go; archives, *ar*-kivz, etc.
Asia, *a*-shia.
Asparagus, as spelled, not asparagrass.
Aunt, ant, not awnt.
Awkward, awk-*wurd*, not awk-*urd*.
Bade, bad.
Because, be-*caws*, not be-*cos*.
Been, bin.
Beloved, as a verb, be-*luvd;* as an adjective be-*luv*-ed. Blessed, cursed, etc., are subject to the same rule.
Beneath, with the *th* in breath, not with the *th* in breathe.
Biog'raphy, as spelled, not beography.
Caprice, capreece.
Catch, as spelled, not ketch.
Chaos, *ka*-oss.
Charlatan, *shar*-latan.
Chasm, kazm.
Chasten, chasn.
Chivalry, *shiv*-alry.
Chemistry, *kem -is-try*.
Choir, kwire.
Combat, *kom*-bat or *kum*-bat.
Conduit, *kon*-dit, *kun*-dit.
Corps, kor, the plural corps is pronounced korz.
Covetous, *cuv*-e-tus, not cuv-e-chus.
Courteous, *curt*-yus.
Courtesy, (politeness), *cur*-te-sey.
Courtesy (a lowering of the body), *curt*-sey
Cresses, as spelled, not cree-ses.
Cu'riosity, cu-re-*os*-e-ty, not curosity.
Cushion, *coosh*-un, not coosh-*in*.
Daunt, d*aw*nt, not dant or darnt.
Design and desist have the sound of *s*, not of *z*.
Desire should have the sound of *z*.
Dew, due, not doo.
Diamond, as spelled, not *di*-mond.
Diploma, de-*plo*-ma, not *dip*-lo-ma.
Diplomacy, de-*plo*-ma-cy, not *dip*-lo-ma-cy.
Divers (several), *di*-verz; but diverse (different), *di*-verse.

Drought, drowt, not drawt.
Duke, as spelled, not dook.
Dynasty, *dy*-nas-ty, not *dyn*-as-te.
Edict, *e*-dickt, not *ed*-ickt.
E'en, and e'er, een and air.
Egotism, *e*-go-tism, not *eg*-o-tism.
Either, *e*-ther.
Engine, *en*-jin, not *in*-jin.
Epistle, without the *t*.
Epitome, e-*pit*-o-me.
Epoch, *ep*-ock, not *e*-pock.
Equinox, *e*-qui-nox, not *eq*-kwe-nox.
Europe, *U*-rup, not *U*-rope.
Euro-*pe*-an, not Eu-*ro*-pean.
Every, *ev*-er-y, not *ev*-ry.
Executor, egz-*ec*-utor, not with the sound of *x*.
Extraordinary, ex-*tror*-di-ner-i, not *ex*-traordinary, nor extrornary.
February, as spelled, not Febuary.
Finance, *fi*-nans, not *fi*-nance.
Foundling, as spelled, not *fond*-ling.
Garden, *gar*-dn, not gar-den, nor garding.
Gauntlet, gawnt-let, not *gant*-let.
Geography, as spelled, not *jog*raphy, or gehography.
Geometry, as spelled, not *jom*-etry.
Haunt, hawnt, not hant.
Height, hite, not highth.
Heinous, *hay*-nus, not *hee*-nus.
Horizon, ho-*ri*-*zn*, not *hor*-i zon.
Hymeneal, hy-men-*e*-al, not hy-menal.
Instead, in-*sted*, not instid.
Isolate, *i*-so-late, not *iz*-olate, nor *is*-olate.
Jalap, *jal*-ap, not jolup.
January, as spelled, not Jenuary nor Janewary.
Leave, as spelled, not leaf.
Legend, *lej*-end, or *le*-gend.
Many, *men*-ney, not man-ny.
Marchioness, *mar*-shun-ess, not as spelled.
Massacre, *mas*-sa-ker.
Mattress, as spelled, not *mat*-trass.
Matron, *ma*-trun, not mat-ron.
Medicine, *med*-e-cin, not *med*-cin.
Minute (sixty seconds), *min*-it.
Minute (small), mi-*nute*.
Mischievous, *mis*-chiv-us, not mis-*cheev*-us.
Ne'er, for never, nare.
New, nu, not noo.
Oblige, as spelled, not obleege.
Oblique, ob-*leek*, or o-*blike*.
Odorous, *o*-der-us, not *od*-ur-us.
Of, ov, except when compounded with there, here, and where, which should be pronounced here-*of*, there-*of*, and where-*of*.
Off, as spelt, not awf.
Organization, *or*-gan-i-*za*-shun.
Ostrich, *os*-trich, not *os*-tridge.
Pageant, *paj*-ent, not *pa*-jant.
Parent, *pare*-ent, not *par*-ent.
Partisan, *par*-te-zan, not par-te-*zan*, nor *par*-ti-zan.
Physiognomy, as *fiz*-i-*og*-nomy, not physi-onnomy.
Pincers, *pin*-cerz, not pinch-erz.
Plaintiff, as spelled, not plantiff.
Precedent (an example, *prcs*-e-dent; pre-*ce*-dent (going before in point of time, previous, former) is the pronunciation of the adjective.
Prologue, *pro*-log, not *prol*-og.
Radish, as spelled, not red-ish.
Raillery, *rail*'er-y, or *ral*-er-y, not as spelled.
Rather, *ra*-ther, not raythor.
Resort, re-*zort*.
Resound, se-*zound*.
Respite, *res*-pit, not as spelled.
Rout (a party; and to rout) should be pronounced rowt. Route (a road', root or rowt.
Saunter, *sawn*-ter, not *sarn*-ter or *san*-ter.
Sausage, *saw*-sage, not *sos*-sidge, *sas*-sage.
Schedule, *sked*-ule, not shed-*ule*.
Seamstress is pronounced *seem*-stress, or *sem*-stress.
Shire, as spelled, when uttered as a single word, but shortened into shir in compotion.
Shone, shon, not shun, nor as spelled.
Soldier, *sole*-jer.
Solecism, *sol*-e-cizm, not *so*-le-cizm.
Soot, as spelled, not sut.
Sovereign, *sov*-er-in, or suv-er-in.
Specious, *spe*-shus, not *spesh*-us.
Stomacher, *stum*-a-cher.
Stone (weight), as spelled, not stun.
Synod, *sin*-od, not *sy*-nod.
Tenure, *ten*-ure, not *te*-nure.
Tenet, *ten*-et, not *te*-net.
Thau, as spelled, not thun.
Twelfth should have the th sounded.
Umbrella, as spelled, not um-ber-el-la.
Vase, vaiz or vahz, not vawze.
Was, woz, not wuz.
Weary, *weer*-i, not *wa*ry.
Were, wer, not ware.
Wrath, ath, (as in arm) not *rath*; as an adjective it is spelled wroth, and pronounced with the vowel sound shorter, as in wrathful, etc.
Yacht, yot, not yat.
Zenith, *ze*-nith or *zen*-ith.
Zodiac, *zo*-de-ak.
Zoology should have both *o*'s sounded as *zo-ol*-o-gy, not *zoo*-lo-gy.

—ace, not iss, as furn*ace*, not furn*iss*.
—age, not idge, as cabbage, courage, postage, village.
—ain, ane, not in, as certain, cert*ane*, not cert*in*.
—ate, not it, as moder*ate*, not moder*it*.
—ect, not ec, as asp*ect*, not asp*ec*; subj*ect*, not subj*ec*.
—ed, not id, or ud, as wick*ed*, not wick*id*, or wick*ud*.
—el, not l, as *mod*el, not *mod*l; *nov*el, not *nov*l.

Note.—The tendency of all good elocutionists is to pronounce as nearly in accordance with the spelling as possible.

—en, not n, as sudd*en*, not sudd*n*.—Burden, burthen, garden, lengthen, seven, strengthen, often, and a few others, have the *e* silent.
—ence, not unce, as influ*ence*, not influ-*unce*.
—es, not is, as pleas*es*, not pleas*is*.
—ile, should be pronounced il, as fert*il*, not fert*ile*, in all words except chamomile, (*cam*), exile, gentile, infantile, reconcile, and senil*e*, which should be pronounced ile.
—in, not n, as Lat*in*, not Lat*n*.
—nd, not n, as husba*nd*, not husba*nd*, thousa*n*, not thousa*n*.
—ness, not n*i*ss, as carefulness, not carefuln*i*ss.
—ng, not n, as singing, not singin; speaking, not speakin.
—ngth, not nth, as stre*ng*th, not stre*n*th.
—son, the *o* should be silent; as in treason, *tre-zn*, not *tre-son*.
—tal, not tle, as capi*tal*, not capi*tle*; metal, not mett*le*; mor*tal*, not mor*tle*; periodi*cal*, not periodi*cle*.
—xt, not x, as ne*xt*, not ne*x*.

TWELVE THOUSAND SYNONYMS AND ANTONYMS.

No two words in the English language have exactly the same significance, but to express the precise meaning that one intends to convey, and to avoid repetition, it is often desirable to have at hand a Dictionary of Synonyms. Take President Cleveland's famous phrase, "innocuous desuetude." If he had said simply, "harmless disuse," it would have sounded clumsy, whereas the words he used expressed the exact shade of meaning, besides giving the world a new phrase and the newspapers something to talk about.

The following list of SYNONYMS, while not exhaustive, is quite comprehensive, and by cross-reference will answer most requirements. The appended ANTONYMS, or words of opposite meaning, enclosed in parentheses, will also be found extremely valuable, for one of the strongest figures of speech is *antithesis*, or contrast:

ABANDON, leave, forsake, desert, renounce, relinquish, quit, forego, let go, waive. (Keep, cherish.) ABANDONED, deserted, forsaken, wicked, reprobate, dissolute, profligate, flagitious, corrupt, depraved, vicious. (Cared for, virtuous.) ABANDONMENT, leaving, desertion, dereliction, renunciation, defection. ABASEMENT, degradation, fall, degeneracy, humiliation, abjection, debasement, servility. (Honor.) ABASH, bewilder, disconcert, discompose, confound, confuse, shame. (Embolden.) ABBREVIATE, shorten, abridge, condense, contract, curtail, reduce. (Extend.) ABDICATE, give up, resign, renounce, abandon, forsake, relinquish, quit, forego. ABET, help, encourage, instigate, incite, stimulate, aid, assist. (Resist.) ABETTOR, assistant, accessory, accomplice, promoter, instigator, *particeps criminis*, coadjutor, associate, companion, co operator. (Opponent.) ABHOR, dislike intensely, view with horror, hate, detest, abominate, loathe, nauseate. (Love.) ABILITY, capability, talent, faculty, capacity, qualification, aptitude, aptness, expertness, skill, efficiency, accomplishment, attainment. (Incompetency.) ABJECT, grovelling, low, mean, base, ignoble, worthless, despicable, vile, servile, contemptible. (Noble.) ABJURE, recant, forswear, disclaim, recall, revoke, retract, renounce. (Maintain.) ABLE, strong, powerful, muscular, stalwart, vigorous, athletic, robust, brawny, skillful, adroit, competent, efficient, capable, clever, self-qualified, telling, fitted. (Weak.)

ABODE, residence, habitation, dwelling, domicile, home, quarters, lodgings. ABOLISH, quash, destroy, revoke, abrogate, annul, cancel, annihilate, extinguish, vitiate, invalidate, nullify. (Establish, enforce.) ABOMINABLE, hateful, detestable, odious, vile, execrable. (Lovable.) ABORTIVE, fruitless, ineffectual, idle, inoperative, vain, futile. (Effectual.) ABOUT, concerning, regarding, relative to, with regard to, as to, respecting, with respect to, referring to, around, nearly, approximately. ABSCOND, run off, steal away, decamp, bolt. ABSENT, *a.*, inattentive, abstracted, not attending to, listless, dreamy. (Present.) ABSOLUTE, entire, complete, unconditional, unqualified, unrestricted, despotic, arbitrary, tyrannous, imperative, authoritative, imperious. (Limited.) ABSORB, engross, swallow up, engulf, imbibe, consume, merge, fuse. ABSURD, silly, foolish, preposterous, ridiculous, irrational, unreasonable, nonsensical, inconsistent. (Wise, solemn.) ABUSE, *v.*, asperse, revile, vilify, reproach, calumniate, defame, slander, scandalize, malign, traduce, disparage, depreciate, ill-use. (Praise, protect.) ABUSE, *n.*, scurrility, ribaldry, contumely, obloquy, opprobrium, foul, invective, vituperation, ill-usage. (Praise, protection.) ACCEDE, assent to, consent, acquiesce, comply with, agree, coincide, concur, approve. (Protest.) ACCELERATE, hasten, hurry, expedite, forward, quicken, despatch. (Retard.) ACCEPT, receive, take, admit. (Refuse.) ACCEPTABLE, agreeable, pleasing, pleasurable, gratifying, welcome. (Displeasing.) ACCIDENT, casualty, incident, contingency, adventure, chance. ACCOMMODATE, serve, oblige, adapt, adjust, fit, suit. (Disoblige, impede.) ACCOMPLICE, confederate, accessory, abettor, coadjutor, assistant, ally, associate, *particeps criminis*. (Adversary.) ACCOMPLISH, do, effect, finish, execute, achieve, complete, perfect, consummate. (Fail.) ACCOMPLISHMENT, attainment, qualification, acquirement. (Defect.) ACCORD, grant, allow, admit, concede. (Deny.) ACCOST, salute, address, speak to, stop, greet. ACCOUNT, narrative, description, narration, relation, detail, recital, moneys, reckoning, bill, charge. ACCOUNTABLE, punishable, answerable, amenable, responsible, liable. ACCUMULATE, bring together, amass, collect, gather. (Scatter, dissipate.) ACCUMULATION, collection, store, mass, congeries, concentration. ACCURATE, correct, exact, precise, nice, truthful. (Erroneous, careless.) ACHIEVE, do, accomplish, effect, fulfill, execute, gain, win. ACHIEVEMENT, feat, exploit, accomplishment, attainment, performance, acquirement, gain. (Failure.) ACKOWLEDGE, admit, confess, own, avow, grant, recognize, allow, concede. (Deny.) ACQUAINT, inform, enlighten, apprise, make aware, make known, notify, communicate. (Deceive.) ACQUAINTANCE, familiarity, intimacy, cognizance, fellowship, companionship, knowledge. (Unfamiliarity.) ACQUIESCE, agree, accede, assent, comply, consent, give way, coincide with. (Protest.) ACQUIT, pardon, forgive, discharge, set free, clear, absolve. (Condemn, convict.) ACT, do, operate, make, perform, play, enact. ACTION, deed, achievement, feat, exploit, accomplishment, battle, engagement, agency, instrumentality. ACTIVE, lively, sprightly, alert, agile, nimble, brisk, quick, supple, prompt, vigilant, laborious, industrious. (Lazy, passive.) ACTUAL, real, positive, genuine, certain. (Fictitious.) ACUTE, shrewd, intelligent, penetrating, piercing, keen. (Dull.) ADAPT, accommodate, suit, fit, conform. ADDICTED, devoted, wedded, attached, given up to, dedicated. ADDITION, increase, accession, augmentation, reinforcement. (Subtraction, separation.) ADDRESS, speech, discourse, appeal, oration, tact, skill, ability, dexterity, deportment, demeanor. ADHESION, adherence, attachment,

fidelity, devotion. (Aloofness.) ADJACENT, near to, adjoining, contiguous, conterminous, bordering, neighboring. (Distant.) ADJOURN, defer, prorogue, postpone, delay. ADJUNCT, appendage, appurtenance, appendency, dependency. ADJUST, set right, fit, accomodate, adapt, arrange, settle, regulate, organize. (Confuse.) ADMIRABLE, striking, surprising, wonderful, astonishing. (Detestable.) ADMIT, allow, permit, suffer, tolerate. (Deny.) ADVANTAGEOUS, beneficial. (Hurtful.) AFFECTION, love. (Aversion.) AFFECTIONATE, fond, kind. (Harsh.) AGREEABLE, pleasant, pleasing, charming. (Disagreeable.) ALTERNATING, halting, intermittent. (Continual.) AMBASSADOR, envoy, plenipotentiary, minister. AMEND, improve, correct, better, mend. (Impair.) ANGER, ire, wrath, indignation, resentment. (Good nature.) APPROPRIATE, assume, ascribe, arrogate, usurp. ARGUE, debate, dispute, reason upon. ARISE, flow, emanate, spring, proceed, rise, issue. ARTFUL, disingenuous, sly, tricky, insincere. (Candid.) ARTIFICE, trick, stratagem, finesse. ASSOCIATION, combination, company, partnership, society. ATTACK, assail, assault, encounter. (Defend.) AUDACITY, boldness, effrontery, hardihood. (Meekness.) AUSTERE, rigid, rigorous, severe, stern. (Dissolute.) AVARICIOUS, niggardly, miserly, parsimonious. (Generous.) AVERSION, antipathy, dislike, hatred, repugnance. (Affection.) AWE, dread, fear, reverence. (Familiarity.) AWKWARD, clumsy. (Graceful.) AXIOM, adage, aphorism, apothegm, by-word, maxim, proverb, saying, saw.

BABBLE, chatter, prattle, prate. BAD, wicked, evil. (Good.) BAFFLE, confound, defeat, disconcert. (Aid, abet.) BASE, vile, mean. (Noble.) BATTLE, action, combat, engagement. BEAR, carry, convey, transport. BEAR, endure, suffer, support. BEASTLY, brutal, sensual, bestial. BEAT, defeat, overpower, overthrow, rout. BEAUTIFUL, fine, handsome, pretty. (Homely, ugly.) BECOMING, decent, fit, seemly, suitable. (Unbecoming.) BEG, beseech, crave, entreat, implore, solicit, supplicate. (Give.) BEHAVIOR, carriage, conduct, deportment, demeanor. BELIEF, credit, faith, trust. (Doubt.) BENEFICIENT, bountiful, generous, liberal, munificent. (Covetous, miserly.) BENEFIT, favor, advantage, kindness, civility. (Injury.) BENEVOLENCE, beneficence, benignity, humanity, kindness, tenderness. (Malevolence.) BLAME, censure, condemn, reprove, reproach, upbraid. (Praise.) BLEMISH, flaw, speck, spot, stain. (Ornament.) BLIND, sightless, heedless. (Far-sighted.) BLOT, cancel, efface, expunge, erase, obliterate. BOLD, brave, daring, fearless, intrepid, undaunted. (Timid.) BORDER, brim, brink, edge, margin, rim, verge, boundary, confine, frontier. BOUND, circumscribe, confine, limit, restrict. BRAVE, dare, defy. BRAVERY, courage, valor. (Cowardice.) BREAK, bruise, crush, pound, squeeze. BREEZE, blast, gale, gust, hurricane, storm, tempest. BRIGHT, clear, radiant, shining. (Dull.) BURIAL, interment, sepulture. (Resurrection,) BUSINESS, avocation, employment, engagement, occupation, art, profession, trade. BUSTLE, stir, tumult, fuss. (Quiet.)

CALAMITY, disaster, misfortune, mischance, mishap. (Good fortune.) CALM, collected, composed, placid, serene. (Stormy, unsettled.) CAPABLE, able, competent. (Incompetent.) CAPTIOUS, fretful, cross, peevish, petulant. (Good-natured.) CARE, anxiety, concern, solicitude, heed, attention. (Heedlessness, negligence.) CARESS, kiss, embrace. (Spurn, buffet.) CARNAGE, butchery, massacre, slaughter. CAUSE, motive, reason. (Effect, consequence.) CEASE, discontinue, leave off, end. (Continue.) CENSURE, animadvert, criticise. (Praise.) CERTAIN, secure, sure. (Doubtful.) CESSATION, intermission, rest, stop. (Contin-

uance.) CHANCE, fate, fortune. (Design.) CHANGE, barter, exchange, substitute. CHANGEABLE, fickle, inconstant, mutable, variable. (Unchangeable.) CHARACTER, reputation, repute, standing. CHARM, captivate, enchant, enrapture, fascinate. CHASTITY, purity, continence, virtue. (Lewdness.) CHEAP, inexpensive, inferior, common. (Dear.) CHEERFUL, gay, merry, sprightly. (Mournful.) CHIEF, chieftain, head, leader. (Subordinate.) CIRCUMSTANCE, fact, incident. CLASS, degree, order, rank. CLEAR, bright, lucid, vivid. (Opaque.) CLEVER, adroit, dexterous, expert, skillful. (Stupid.) CLOTHED, clad, dressed. (Naked.) COARSE, rude, rough, unpolished. (Fine.) COAX, cajole, fawn, wheedle. COLD, cool, frigid, wintry, unfeeling, stoical. (Warm.) COLOR, dye, stain, tinge. COLORABLE, ostensible, plausible, specious. COMBINATION, cabal, conspiracy, plot. COMMAND, injunction, order, precept. COMMODITY, goods, merchandise, ware. COMMON, mean, ordinary, vulgar. (Uncommon, extraordinary.) COMPASSION, sympathy, pity, clemency. (Cruelty, severity.) COMPEL, force, oblige, neccesitate. (Coax, lead.) COMPENSATION, amends, recompense, remuneration, requital, reward. COMPENDIUM, compend, abridgment. (Enlargement.) COMPLAIN, lament, murmur, regret, repine. (Rejoice.) COMPLY, accede, conform, submit, yield. (Refuse.) COMPOUND, complex. (Simple.) COMPREHEND, comprise, include, embrace, grasp, understand, perceive. (Exclude, mistake.) COMPRISE, comprehend, contain, embrace, include. CONCEAL, hide, secrete. (Uncover.) CONCEIVE, comprehend, understand. CONCLUSION, inference, deduction. CONDEMN, censure, blame, disapprove. (Justify, exonerate.) CONDUCT, direct, guide, lead, govern, regulate, manage. CONFIRM, corroborate, approve, attest. (Contradict.) CONFLICT, combat, contest, contention, struggle. (Peace, quiet.) CONFUTE, disprove, refute, oppugn. (Approve.) CONQUER, overcome, subdue, surmount, vanquish. (Defeat.) CONSEQUENCE, effect, event, issue, result. (Cause.) CONSIDER, reflect, ponder, weigh. CONSISTENT, constant, compatible. (Inconsistent.) CONSOLE, comfort, solace. (Harrow, worry.) CONSTANCY, firmness, stability, steadiness. (Fickleness.) CONTAMINATE, corrupt, defile, pollute, taint. CONTEMN, despise, disdain, scorn. (Esteem.) CONTEMPLATE, meditate, muse. CONTEMPTIBLE, despicable, paltry, pitiful, vile, mean. (Noble.) CONTEND, contest, dispute, strive, struggle, combat. CONTINUAL, constant, continuous, perpetual, incessant. (Intermittent.) CONTINUANCE, continuation, duration. (Cessation.) CONTINUE, persist, persevere, pursue, prosecute. (Cease.) CONTRADICT, deny, gainsay, oppose. (Confirm.) COOL, cold, frigid. (Hot.) CORRECT, rectify, reform. COST, charge, expense, price. COVETOUSNESS, avarice, cupidity. (Beneficence.) COWARDICE, fear, timidity, pusillanimity. (Courage.) CRIME, sin, vice, misdemeanor. (Virtue.) CRIMINAL, convict, culprit, felon, malefactor. CROOKED, bent, curved, oblique. (Straight.) CRUEL, barbarous, brutal, inhuman, savage. (Kind.) CULTIVATION, culture, refinement. CURSORY, desultory, hasty, slight. (Thorough.) CUSTOM, fashion, manner, practice.

DANGER, hazard, peril. (Safety.) DARK, dismal, opaque, obscure, dim. (Light.) DEADLY, fatal, destructive, mortal. DEAR, beloved, precious, costly, expensive. (Despised, cheap.) DEATH, departure, decease, demise. (Life.) DECAY, decline, cousumption. (Growth.) DECEIVE, delude, impose upon, over-reach, gull, dupe, cheat. DECEIT, cheat, imposition, trick, delusion, guile, beguilement, treachery, sham. (Truthfulness.) DECIDE, determine, settle, adjudicate, terminate, re-

solve. DECIPHER, read, spell, interpret, solve. DECISION, determination, conclusion, resolution, firmness. (Vacillation.) DECLAMATION, oratory, elocution, harangue, effusion, debate. DECLARATION, avowal, manifestation, statement, profession. DECREASE, diminish, lessen, wane, decline, retrench, curtail, reduce. (Growth.) DEDICATE, devote, consecrate, offer, set, apportion. DEED, act, action, commission, achievement, instrument, document, muniment. DEEM, judge, estimate, consider, think, suppose, conceive. DEEP, profound, subterranean, submerged, designing, abstruse, learned. (Shallow.) DEFACE, mar, spoil, injure, disfigure. (Beautify.) DEFAULT, lapse, forfeit, omission, absence, want, failure. DEFECT, imperfection, flaw, fault, blemish. (Beauty, improvement.) DEFEND, guard, protect, justify. DEFENSE, excuse, plea, vindication, bulwark, rampart. DEFER, delay, postpone, put off, prorogue, adjourn. (Force, expedite.) DEFICIENT, short, wanting, inadequate, scanty, incomplete. (Complete, perfect.) DEFILE, *v.*, pollute, corrupt, sully. (Beautify.) DEFINE, fix, settle, determine, limit. DEFRAY, meet, liquidate, pay, discharge. DEGREE, grade, extent, measure. DELIBERATE, *v.*, consider, meditate, consult, ponder, debate. DELIBERATE, *a.*, purposed, intentional, designed, determined. (Hasty.) DELICACY, nicety, dainty, refinement, tact, softness, modesty. (Boorishness, indelicacy.) DELICATE, tender, fragile, dainty, refined. (Coarse.) DELICIOUS, sweet, palatable. (Nauseous.) DELIGHT, enjoyment, pleasure, happiness, transport, ecstasy, gladness, rapture, bliss. (Annoyance.) DELIVER, liberate, free, rescue, pronounce, give, hand over. (Retain.) DEMONSTRATE, prove, show, exhibit, illustrate. DEPART, leave, quit, decamp, retire, withdraw, vanish. (Remain.) DEPRIVE, strip, bereave, despoil, rob, divest. DEPUTE, appoint, commission, charge, intrust, delegate, authorize, accredit. DERISION, scorn, contempt, contumely, disrespect. DERIVATION, origin, source, beginning, cause, etymology, root. DESCRIBE, delineate, portray, explain, illustrate, define, picture. DESECRATE, profane, secularize, misuse, abuse, pollute. (Keep holy.) DESERVE, merit, earn, justify, win. DESIGN, *n.*, delineation, sketch, drawing, cunning, artfulness, contrivance. DESIRABLE, expedient, advisable, valuable, acceptable, proper, judicious, beneficial, profitable, good. DESIRE, *n.*, longing, affection, craving. DESIST, cease, stop, discontinue, drop, abstain, forbear. (Continue, persevere.) DESOLATE, bereaved, forlorn, forsaken, deserted, wild, waste, bare, bleak, lonely. (Pleasant, happy.) DESPERATE, wild, daring, audacious, determined, reckless, hopeless. DESTINY, fate, decree, doom, end. DESTRUCTIVE, detrimental, hurtful, noxious, injurious, deleterious, baleful, baneful, subversive. (Creative, constructive.) DESUETUDE, disuse, discontinuance. (Maintenance.) DESULTORY, rambling, discursive, loose, unmethodical, superficial, unsettled, erratic, fitful. (Thorough.) DETAIL, *n.*, particular, specification, minutiæ. DETAIL, *v.*, particularize, enumerate, specify. (Generalize.) DETER, warn, stop, dissuade, terrify, scare. (Encourage.) DETRIMENT, loss, harm, injury, deterioration. (Benefit.) DEVELOP, unfold, amplify, expand, enlarge. DEVICE, artifice, expedient, contrivance. DEVOID, void, wanting, destitute, unendowed, unprovided. (Full, complete.) DEVOTED, attached, fond, absorbed, dedicated. DICTATE, prompt, suggest, enjoin, order, command. DICTATORIAL, imperative, imperious, domineering, arbitrary, tyrannical, overbearing. (Submissive.) DIE, expire, depart, perish, decline, languish, pass away, fade, decay. DIET, food, victuals, nourishment, nutriment, sustenance, fare. DIFFERENCE, separation, disagreement, discord, dis-

sent, estrangement, variety. DIFFERENT, various, manifold, diverse, unlike, separate, distinct. (Similar, homogeneous.) DIFFICULT, hard, intricate, involved, perplexing, obscure, unmanageable. (Easy.) DIFFUSE, discursive, prolix, diluted, copious. DIGNIFY, aggrandize, elevate, invest, exalt, advance, promote, honor. (Degrade.) DILATE, stretch, widen, expand, swell, distend, enlarge, descant, expatiate. DILATORY, tardy, procrastinating, behindhand, lagging, dawdling. (Prompt.) DILIGENCE, care, assiduity, attention, heed, industry. (Negligence.) DIMINISH, lessen, reduce, contract, curtail, retrench. (Increase.) DISABILITY, unfitness, incapacity. DISCERN, descry, observe, recognize, see, discriminate, separate, perceive. DISCIPLINE, order, strictness, training, coercion, punishment, organization. (Confusion, demoralization.) DISCOVER, make known, find, invent, contrive, expose, reveal. DISCREDITABLE, shameful, disgraceful, scandalous, disreputable. (Creditable.) DISCREET, cautious, prudent, wary, judicious. (Indiscreet.) DISCREPANCY, disagreement, difference, variance. (Agreement.) DISCRIMINATION, acuteness, discernment, judgment, caution. DISEASE, complaint, malady, disorder, ailment, sickness. DISGRACE, *n.*, disrepute, reproach, dishonor, shame, odium. (Honor.) DISGRACE, *v.*, debase, degrade, defame, discredit. (Exalt.) DISGUST, dislike, distaste, loathing, abomination, abhorrence. (Admiration.) DISHONEST, unjust, fraudulent, unfair, deceitful, cheating, deceptive, wrongful. (Honest.) DISMAY, *v.*, terrify, frighten, scare, daunt, appall, dishearten. (Encourage.) DISMAY, *n.*, terror, dread, fear, fright. (Assurance.) DISMISS, send off, discharge, discard, banish. (Retain.) DISPEL, scatter, drive away, disperse, dissipate. (Collect.) DISPLAY, show, spread out, exhibit, expose. (Hide.) DISPOSE, arrange, place, order, give, bestow. DISPUTE, *v.*, argue, contest, contend, question, impugn. (Assent.) DISPUTE, *n.*, argument, debate, controversy, quarrel, disagreement. (Harmony.) DISSENT, disagree, differ, vary. (Assent.) DISTINCT, clear, plain, obvious, different, separate. (Obscure, indistinct.) DISTINGUISH, perceive, discern, mark out, divide, discriminate. DISTINGUISHED, famous, glorious, far-famed, noted, illustrious, eminent, celebrated. (Obscure, unknown, ordinary.) DISTRACT, perplex, bewilder. (Calm, concentrate.) DISTRIBUTE, allot, share, dispense, apportion, deal. (Collect.) DISTURB, derange, discompose, agitate, rouse, interrupt, confuse, annoy, trouble, vex, worry. (Pacify, quiet.) DISUSE, discontinuance, abolition, desuetude. (Use.) DIVIDE, part, separate, distribute, deal out, sever, sunder. DIVINE, godlike, holy, heavenly, sacred, a parson, clergyman, minister. DO, effect, make, perform, accomplish, finish, transact. DOCILE, tractable, teachable, compliant, tame. (Stubborn.) DOCTRINE, tenet, articles of belief, creed, dogma, teaching. DOLEFUL, dolorous, woe-begone, rueful, dismal, piteous. (Joyous.) DOOM, *n.*, sentence, verdict, judgment, fate, lot, destiny. DOUBT, *n.*, uncertainty, suspense, hesitation, scruple, ambiguity. (Certainty.) DRAW, pull, haul, drag, attract, inhale, sketch, describe. DREAD, *n.*, fear, horror, terror, alarm, dismay, awe. (Boldness, assurance.) DREADFUL, fearful, frightful, shocking, awful, horrible, horrid, terrific. DRESS, *n.*, clothing, attire, apparel, garments, costume, garb, livery. DRIFT, purpose, meaning, scope, aim, tendency, direction. DROLL, funny, laughable, comic, whimsical, queer, amusing. (Solemn.) DROWN, inundate, swamp, submerge, overwhelm, engulf. DRY, *a.*, arid, parched, lifeless, dull, tedious, uninteresting, meagre. (Moist, interesting, succulent.) DUE, owing to, attributable to, just, fair, proper, debt, right. DULL, stupid, gloomy, sad, dismal, commonplace. (Bright.)

DUNCE, simpleton, fool, ninny, idiot. (Sage.) DURABLE, lasting, permanent, abiding, continuing. (Ephemeral, perishable.) DWELL, stay, stop, abide, sojourn, linger, tarry. DWINDLE, pine, waste, diminish, decrease, fall off. (Grow.)

EAGER, hot, ardent, impassioned, forward, impatient. (Diffident.) EARN, acquire, obtain, win, gain, achieve. EARNEST, *a.*, ardent, serious, grave, solemn, warm. (Trifling.) EARNEST, *n.*, pledge, pawn. EASE, *n.*, comfort, rest. (Worry.) EASE, *v.*, calm, alleviate, allay, mitigate, appease, assuage, pacify, disburden, rid. (Annoy, worry.) EASY, light, comfortable, unconstrained. (Difficult, hard.) ECCENTRIC, irregular, anomalous, singular, odd, abnormal, wayward, particular, strange. (Regular, ordinary.) ECONOMICAL, sparing, saving, provident, thrifty, frugal, careful, niggardly. (Wasteful.) EDGE, border, brink, rim, brim. margin, verge. EFFACE, blot out, expunge, obliterate, wipe out, cancel, erase. EFFECT, *n.*, consequence, result, issue, event, execution, operation. EFFECT, *v.*, accomplish, fulfill, realize, achieve, execute, operate, complete. EFFECTIVE, efficient, operative, serviceable. (Vain, ineffectual.) EFFICACY, efficiency, energy, agency, instrumentality. EFFICIENT, effectual, effective, competent, capable, able, fitted. ELIMINATE, drive out, expel, thrust out, eject, cast out, oust, dislodge, banish, proscribe. ELOQUENCE, oratory, rhetoric, declamation. ELUCIDATE, make plain, explain, clear up, illustrate. ELUDE, evade, escape, avoid, shun. EMBARRASS, perplex, entangle, distress, trouble. (Assist.) EMBELLISH, adorn, decorate, bedeck, beautify, deck. (Disfigure.) EMBOLDEN, inspirit, animate, encourage, cheer, urge; impel, stimulate. (Discourage.) EMINENT, distinguished, signal, conspicuous, noted, prominent, elevated, renowned, famous, glorious, illustrious. (Obscure, unknown.) EMIT, give out, throw out, exhale, discharge, vent. EMOTION, perturbation, agitation, trepidation, tremor, mental conflict. EMPLOY, occupy, busy, take up with, engross. EMPLOYMENT, business, avocation, engagement, office, function, trade, profession, occupation, calling, vocation. ENCOMPASS, *v.*, encircle, surround, gird, beset. ENCOUNTER, attack, conflict, combat, assault, onset, engagement, battle, action. ENCOURAGE, countenance, sanction, support, foster, cherish, inspirit, embolden, animate, cheer, incite, urge, impel, stimulate. (Deter.) END, *n.*, aim, object, purpose, result, conclusion, upshot, close, expiration, termination, extremity, sequel. ENDEAVOR, attempt, try, essay, strive, aim. ENDURANCE, continuation, duration, fortitude, patience, resignation. ENDURE, *v.*, last, continue, support, bear, sustain, suffer, brook, submit to, undergo. (Perish.) ENEMY, foe, antagonist, adversary, opponent. (Friend.) ENERGETIC, industrious, effectual, efficacious, powerful, binding, stringent, forcible, nervous. (Lazy.) ENGAGE, employ, busy, occupy, attract, invite, allure, entertain, engross, take up, enlist. ENGROSS, absorb, take up, busy, occupy, engage, monopolize. ENGULF, swallow up, absorb, imbibe, drown, submerge, bury, entomb, overwhelm. ENJOIN, order, ordain, appoint, prescribe. ENJOYMENT, pleasure, gratification. (Grief, sorrow, sadness.) ENLARGE, increase, extend, augment, broaden, swell. (Diminish.) ENLIGHTEN, illumine, illuminate, instruct, inform. (Befog, becloud.) ENLIVEN, cheer, vivify, stir up, animate, inspire, exhilarate. (Sadden, quiet.) ENMITY, animosity, hostility, ill-will, maliciousness. (Friendship.) ENORMOUS, gigantic, colossal, huge, vast, immense, prodigious. (Insignificant.) ENOUGH, sufficient, plenty, abundance. (Want.) ENRAGED, infuriated, raging, wrathful. (Pacified.) ENRAPTURE, enchant, fascinate, charm, capti-

vate, bewitch. (Repel.) ENROLL, enlist, list, register, record. ENTERPRISE, undertaking, endeavor, venture, energy. ENTHUSIASM, earnest devotion, zeal, ardor. (Ennui, lukewarmness.) ENTHUSIAST, fanatic, visionary. EQUAL, equable, even, like, alike, uniform. (Unequal.) ERADICATE, root out, extirpate, exterminate. ERRONEOUS, incorrect, inaccurate, inexact. (Exact.) ERROR, blunder, mistake. (Truth.) ESPECIALLY, chiefly, particularly, principally. (Generally.) ESSAY, dissertation, tract, treatise. ESTABLISH, build up, confirm. (Overthrow.) ESTEEM, regard, respect. (Contempt.) ESTIMATE, appraise, appreciate, esteem, compute, rate. ESTRANGEMENT, abstraction, alienation. ETERNAL, endless, everlasting. (Finite.) EVADE, equivocate, prevaricate. EVEN, level, plain, smooth. (Uneven.) EVENT, accident, adventure, incident, occurrence. EVIL, ill, harm, mischief, misfortune. (Good.) EXACT, nice, particular, punctual. (Inexact.) EXALT, ennoble, dignify, raise. (Humble.) EXAMINATION, investigation, inquiry, research, search, scrutiny. EXCEED, excel, outdo, surpass, transcend. (Fall short.) EXCEPTIONAL, uncommon, rare, extraordinary. (Common.) EXCITE, awaken, provoke, rouse, stir up. (Lull.) EXCURSION, jaunt, ramble, tour, trip. EXECUTE, fulfill, perform. EXEMPT, free, cleared. (Subject.) EXERCISE, practice. EXHAUSTIVE, thorough, complete. (Cursory.) EXIGENCY, emergency. EXPERIMENT, proof, trial, test. EXPLAIN, expound, interpret, illustrate, elucidate. EXPRESS, declare, signify, utter, tell. EXTEND, reach, stretch. (Abridge.) EXTRAVAGANT, lavish, profuse, prodigal. (Parsimonious.)

FABLE, apologue, novel, romance, tale. FACE, visage, countenance. FACETIOUS, pleasant, jocular, jocose. (Serious.) FACTOR, agent. FAIL, to fall short, be deficient. (Accomplish.) FAINT, languid. (Forcible.) FAIR, clear. (Stormy.) FAIR, equitable, honest, reasonable. (Unfair.) FAITH, creed. (Unbelief, infidelity.) FAITHFUL, true, loyal, constant. (Faithless.) FAITHLESS, perfidious, treacherous. (Faithful.) FALL, drop, droop, sink, tumble. (Rise.) FAME, renown, reputation. FAMOUS, celebrated, renowned, illustrious. (Obscure.) FANCIFUL, capricious, fantastical, whimsical. FANCY, imagination. FAST, rapid, quick, fleet, expeditious. (Slow.) FATIGUE, weariness, lassitude. (Vigor.) FEAR, timidity, timorousness. (Bravery.) FEELING, sensation, sense. FEELING, sensibility, susceptibility. (Insensibility.) FEROCIOUS, fierce, savage, wild, barbarous. (Mild.) FERTILE, fruitful, prolific, plenteous, productive. (Sterile.) FICTION, falsehood, fabrication. (Fact.) FIGURE, allegory, emblem, metaphor, symbol, type. FIND, find out, descry, discover, espy. (Lose, overlook.) FINE, *a.*, delicate, nice. (Coarse.) FINE, forfeit, forfeiture, mulct, penalty. FIRE, glow, heat, warmth. FIRM, constant, solid, steadfast, fixed, stable. (Weak.) FIRST, foremost, earliest. (Last.) FIT, accommodate, adapt, adjust, suit. FIX, determine, establish, settle, limit. FLAME, blaze, flare, flash, glare. FLAT, level, even. FLEXIBLE, pliant, pliable, ductile, supple, (Inflexible.) FLOURISH, prosper, thrive. (Decay.) FLUCTUATING, wavering, hesitating, oscillating, vacillating, change. (Firm, steadfast, decided.) FLUENT, flowing, glib, voluble, unembarrassed, ready. (Hesitating.) FOLKS, persons, people, individuals. FOLLOW, succeed, ensue, imitate, copy, pursue. FOLLOWER, partisan, disciple, adherent, retainer, pursuer, successor. FOLLY, silliness, foolishness, imbecility, weakness. (Wisdom.) FOND, enamored, attached, affectionate. (Distant.) FONDNESS, affection, attachment, kindness, love. (Aversion.) FOOLHARDY, venturesome, incautious, hasty, adventurous, rash. (Cautious.) FOOLISH,

simple, silly, irrational, brainless, imbecile, crazy, absurd, preposterous, ridiculous, nonsensical. (Wise, discreet.) FOP, dandy, dude, beau, coxcomb, puppy, jackanapes. (Gentleman.) FORBEAR, abstain, refrain, withhold. FORCE, *n.*, strength, vigor, dint, might, energy, power, violence, army, host. FORCE, *v.*, compel. (Persuade.) FORECAST, forethought, foresight, premeditation, prognostication. FOREGO, quit, relinquish, let go, waive. FOREGOING, antecedent, anterior, preceding, previous, prior, former. FORERUNNER, herald, harbinger, precursor, omen. FORESIGHT, forethought, forecast, premeditation. FORGE, coin, invent, frame, feign, fabricate, counterfeit. FORGIVE, pardon, remit, absolve, acquit, excuse, except. FORLORN, forsaken, abandoned, deserted, desolate, lone, lonesome. FORM, *n.*, ceremony, solemnity, observance, rite, figure, shape, conformation, fashion, appearance, representation, semblance. FORM, *v.*, make, create, produce, constitute, arrange, fashion, mould, shape. FORMAL, ceremonious, precise, exact, stiff, methodical, affected. (Informal, natural.) FORMER, antecedent, anterior, previous, prior, preceding, foregoing. FORSAKEN, abandoned, forlorn, deserted, desolate, lone, lonesome. FORTHWITH, immediately, directly, instantly, instantaneously. (Anon.) FORTITUDE, endurance, resolution, fearlessness, dauntlessness. (Weakness.) FORTUNATE, lucky, happy, auspicious, prosperous, successful. (Unfortunate.) FORTUNE, chance, fate, luck, doom, destiny, property, possession, riches. FOSTER, cherish, nurse, tend, harbor, nurture. (Neglect.) FOUL, impure, nasty, filthy, dirty, unclean, defiled. (Pure, clean.) FRACTIOUS, cross, captious, petulant, touchy, testy, peevish, fretful, splenetic. (Tractable.) FRAGILE, brittle, frail, delicate, feeble. (Strong.) FRAGMENTS, pieces, scraps, chips, leavings, remains, remnants. FRAILTY, weakness, failing, foible, imperfection, fault, blemish. (Strength.) FRAME, *v.*, construct, invent, coin, fabricate, forge, mold, feign, make, compose. FRANCHISE, right, exemption, immunity, privilege, freedom, suffrage. FRANK, artless, candid, sincere, free, easy, familiar, open, ingenuous, plain. (Tricky, insincere.) FRANTIC, distracted, mad, furious, raving, frenzied. (Quiet, subdued.) FRAUD, deceit, deception, duplicity, guile, cheat, imposition. (Honesty.) FREAK, fancy, humor, vagary, whim, caprice, crotchet. (Purpose, resolution.) FREE, *a.*, liberal, generous, bountiful, bounteous, munificent, frank, artless, candid, familiar, open, independent, unconfined, unreserved, unrestricted, exempt, clear, loose, easy, careless. (Slavish, stingy, artful, costly.) FREE, *v.*, release, set free, deliver, rescue, liberate, enfranchise, affranchise, emancipate, exempt. (Enslave, bind.) FREEDOM, liberty, independence, unrestraint, familiarity, licence, franchise, exemption, privilege. (Slavery.) FREQUENT, often, common, usual, general. (Rare.) FRET, gall, chafe, agitate, irritate, vex. FRIENDLY, amicable, social, sociable. (Distant, reserved, cool.) FRIGHTFUL, fearful, dreadful, dire, direful, terrific, awful, horrible, horrid. FRIVOLOUS, trifling, trivial, petty. (Serious, earnest.) FRUGAL, provident, economical, saving. (Wasteful, extravagant.) FRUITFUL, fertile, prolific, productive, abundant, plentiful, plenteous. (Barren, sterile.) FRUITLESS, vain, useless, idle, abortive, bootless, unavailing, without avail. FRUSTRATE, defeat, foil, balk, disappoint. FULFILL, accomplish, effect, complete. FULLY, completely, abundantly, perfectly. FULSOME, coarse, gross, sickening, offensive, rank. (Moderate.) FURIOUS, violent, boisterous, vehement, dashing, sweeping, rolling, impetuous, frantic, distracted, stormy, angry, raging, fierce. (Calm.) FUTILE, trifling, trivial, frivolous, useless. (Effective.)

GAIN, *n.*, profit, emolument, advantage, benefit, winnings, earnings. (Loss.) GAIN, *v.*, get, acquire, obtain, attain, procure, earn, win, achieve, reap, realize, reach. (Lose.) GALLANT, brave, bold, courageous, gay, fine, showy, intrepid, fearless, heroic. GALLING, chafing, irritating, vexing. (Soothing.) GAME, play, pastime, diversion, sport, amusement. GANG, band, horde, company, troop, crew. GAP, breach, chasm, hollow, cavity, cleft, crevice, rift, chink. GARNISH, embellish, adorn, beautify, deck, decorate. GATHER, pick, cull, assemble, muster, infer, collect. (Scatter.) GAUDY, showy, flashy, tawdry, gay, glittering, bespangled. (Sombre.) GAUNT, emaciated, scraggy, skinny, meagre, lank, attenuated, spare, lean, thin. (Well-fed.) GAY, cheerful, merry, lively, jolly, sprightly, blithe. (Solemn.) GENERATE, form, make, beget, produce. GENERATION, formation, race, breed, stock, kind, age, era. GENEROUS, beneficent, noble, honorable, bountiful, liberal, free. (Niggardly.) GENIAL, cordial, hearty, festive, joyous. (Distant, cold.) GENIUS, intellect, invention, talent, taste, nature, character, adept. GENTEEL, refined, polished, fashionable, polite, well-bred. (Boorish.) GENTLE, placid, mild, bland, meek, tame, docile. (Rough, uncouth.) GENUINE, real, true, unaffected, sincere. (False.) GESTURE, attitude, action, posture. GET, obtain, earn, gain, attain, procure, achieve. GHASTLY, pallid, wan, hideous, grim, shocking. GHOST, spectre, sprite, apparition, shade, phantom. GIBE, scoff, sneer, flout, jeer, mock, taunt, deride. GIDDY, unsteady, flighty, thoughtless. (Steady.) GIFT, donation, benefaction, grant, alms, gratuity, boon, present, faculty, talent. (Purchase.) GIGANTIC, colossal, huge, enormous, vast, prodigious, immense. (Diminutive.) GIVE, grant, bestow, confer, yield, impart. GLAD, pleased, cheerful, joyful, gladsome, gratified, cheering. (Sad.) GLEAM, glimmer, glance, glitter, shine, flash. GLEE, gayety, merriment, mirth, joviality, jovialness, catch. (Sorrow.) GLIDE, slip, slide, run, roll on. GLIMMER, *v.*, gleam, flicker, glitter. GLIMPSE, glance, look, glint. GLITTER, gleam, shine, glisten, glister, radiate. GLOOM, cloud, darkness, dimness, blackness, dulness, sadness. (Light, brightness, joy.) GLOOMY, lowering, lurid, dim, dusky, sad, glum. (Bright, clear.) GLORIFY, magnify, celebrate, adore, exalt. GLORIOUS, famous, renowned, distinguished, noble, exalted. (Infamous.) GLORY, honor, fame, renown, splendor, grandeur. (Infamy.) GLUT, gorge, stuff, cram, cloy, satiate, block up. GO, depart, proceed, move, budge, stir. GOD, Creator, Lord, Almighty, Jehovah, Omnipotence, Providence. GODLY, righteous, devout, holy, pious, religious. GOOD, benefit, weal, advantage, profit, boon. (Evil.) GOOD, *a.*, virtuous, righteous, upright, just, true. (Wicked, bad.) GORGE, glut, fill, cram, stuff, satiate. GORGEOUS, superb, grand, magnificent, splendid. (Plain, simple.) GOVERN, rule, direct, manage, command. GOVERNMENT, rule, state, control, sway. GRACEFUL, becoming, comely, elegant, beautiful. (Awkward.) GRACIOUS, merciful, kindly, beneficent. GRADUAL, slow, progressive, (Sudden.) GRAND, majestic, stately, dignified, lofty, elevated, exalted, splendid, gorgeous, superb, magnificent, sublime, pompous. (Shabby.) GRANT, bestow, impart, give, yield, cede, allow, confer, invest. GRANT, gift, boon, donation. GRAPHIC, forcible, telling, picturesque, vivid, pictorial. GRASP, catch, seize, gripe, clasp, grapple. GRATEFUL, agreeable, pleasing, welcome, thankful. (Harsh.) GRATIFICATION, enjoyment, pleasure, delight, reward. (Disappointment.) GRAVE, *a.*, serious, sedate, solemn, sober, pressing, heavy. (Giddy.) GRAVE, *n.*, tomb, sepulchre, vault. GREAT, big, huge, large, majestic vast, grand, noble, august. (Small.) GREEDINESS, avidity, eagerness, voracity. (Geno-

rosity.) GRIEF, affliction, sorrow, trial, woe, tribulation. (Joy.) GRIEVE, mourn, lament, sorrow, pain, hurt, wound, bewail. (Rejoice.) GRIEVOUS, painful, afflicting, heavy, baleful, unhappy. GRIND, crush, oppress, grate, harass, afflict. GRISLY, terrible, hideous, grim, ghastly, dreadful. (Pleasing.) GROSS, coarse, outrageous, unseemly, shameful, indelicate. (Delicate.) GROUP, assembly, cluster, collection, clump, order, class. GROVEL, crawl, cringe, fawn, sneak. GROW, increase, vegetate, expand, advance. (Decay, diminution.) GROWL, grumble, snarl, murmur, complain. GRUDGE, malice, rancor, spite, pique, hatred, aversion. GRUFF, rough, rugged, blunt, rude, harsh, surly, bearish. (Pleasant.) GUILE, deceit, fraud. (Candor.) GUILTLESS, harmless, innocent. GUILTY, culpable, sinful, criminal.

HABIT, custom, practice. HAIL, accost, address, greet, salute, welcome. HAPPINESS, beatitude, blessedness, bliss, felicity. (Unhappiness.) HARBOR, haven, port. HARD, firm, solid. (Soft.) HARD, arduous, difficult. (Easy.) HARM, injury, hurt, wrong, infliction. (Benefit.) HARMLESS, safe, innocuous, innocent. (Hurtful.) HARSH, rough, rigorous, severe, gruff, morose. (Gentle.) HASTEN, accelerate, despatch, expedite, speed. (Delay.) HASTY, hurried, ill-advised. (Deliberate.) HATEFUL, odious, detestable. (Lovable.) HATRED, enmity, ill-will, rancor. (Friendship.) HAUGHTINESS, arrogance, pride. (Modesty.) HAUGHTY, arrogant, disdainful, supercilious, proud. HAZARD, risk, venture. HEALTHY, salubrious, salutary, wholesome. (Unhealthy.) HEAP, accumulate, amass, pile. HEARTY, *a.*, cordial, sincere, warm. (Insincere.) HEAVY, burdensome, ponderous, weighty. (Light.) HEED, care, attention. HEIGHTEN, enhance, exalt, elevate, raise. HEINOUS, atrocious, flagitious, flagrant. (Venial.) HELP, aid, assist, relieve, succor. (Hinder.) HERETIC, sectary, sectarian, schismatic, dissenter, nonconformist. HESITATE, falter, stammer, stutter. HIDEOUS, grim, ghastly, grisly. (Beautiful.) HIGH, lofty, tall, elevated. (Deep.) HINDER, impede, obstruct, prevent. (Help.) HINT, allude, refer, suggest, intimate, insinuate. HOLD, detain, keep, retain. HOLINESS, sanctity, piety, sacredness. HOLY, devout, pious, religious. HOMELY, plain, ugly, coarse. (Beautiful.) HONESTY, integrity, probity, uprightness. (Dishonesty.) HONOR, *v.*, respect, reverence, esteem. (Dishonor.) HOPE, confidence, expectation, trust. HOPELESS, desperate. HOT, ardent, burning, fiery. (Cold.) HOWEVER, nevertheless, notwithstanding, yet. HUMBLE, modest, submissive, plain, unostentatious, simple. (Haughty.) HUMBLE, degrade, humiliate, mortify, abase. (Exalt.) HUMOR, mood, temper. HUNT, seek, chase. HURTFUL, noxious, pernicious. (Beneficial.) HUSBANDRY, cultivation, tillage. HYPOCRITE, dissembler, impostor, canter. HYPOTHESIS, theory, supposition.

IDEA, thought, imagination. IDEAL, imaginary, fancied. (Actual.) IDLE, indolent, lazy. (Industrious.) IGNOMINIOUS, shameful, scandalous, infamous. (Honorable.) IGNOMINY, shame, disgrace, obloquy, infamy, reproach. IGNORANT, unlearned, illiterate, uninformed, uneducated. (Knowing.) ILL, *n.*, evil, wickedness, misfortune, mischief, harm. (Good.) ILL, *a.*, sick, indisposed, unwell, diseased. (Well.) ILL-TEMPERED, crabbed, sour, surly, acrimonious. (Good-natured.) ILL-WILL, enmity, hatred, antipathy. (Good-will.) ILLEGAL, unlawful, illicit, contraband, illegitimate. (Legal.) ILLIMITABLE, boundless, immeasurable, unlimited, infinite. ILLITERATE, unlettered, unlearned, untaught, uninstructed. (Learned, educated.) ILLUSION, fallacy, deception, phantasm. ILLUSORY, imaginary, chimerical, vision-

ary. (Real.) ILLUSTRATE, explain, elucidate, clear. ILLUSTRIOUS, celebrated, noble, eminent, famous, renowned. (Obscure.) IMAGE, likeness, picture, representation, effigy. IMAGINARY, ideal, fanciful, illusory. (Real.) IMAGINE, conceive, fancy, apprehend, think, presume. IMBECILITY, silliness, senility, dotage. IMITATE, copy, ape, mimic, mock, counterfeit. IMMACULATE, unspotted, spotless, unsullied, stainless. (Soiled.) IMMEDIATE, pressing, instant, next, proximate. IMMEDIATELY, instantly, forthwith, directly, presently. IMMENSE, vast, enormous, huge, prodigious, monstrous. IMMUNITY, privilege, prerogative, exemption. IMPAIR, injure, diminish, decrease. IMPART, reveal, divulge, disclose, discover, bestow, afford. IMPARTIAL, just, equitable, unbiased. (Partial.) IMPASSIONED, glowing, burning, fiery, vehement, intense. IMPEACH, accuse, charge, arraign, censure. IMPEDE, hinder, retard, obstruct, prevent. (Help.) IMPEDIMENT, obstruction, hindrance, obstacle, barrier. (Aid.) IMPEL, animate, induce, incite, instigate, embolden. (Retard.) IMPENDING, imminent, threatening. IMPERATIVE, commanding, authoritative, despotic. IMPERFECTION, fault, blemish, defect, vice. IMPERIL, endanger, hazard, jeopardize. IMPERIOUS, commanding, dictatorial, authoritative, imperative, lordly, overbearing, domineering. IMPERTINENT, intrusive, meddling, officious, rude, saucy, impudent, insolent. IMPETUOUS, violent, boisterous, furious, vehement. (Calm.) IMPIOUS, profane, irreligious, godless. (Reverent.) IMPLICATE, involve, entangle, embarrass, compromise. IMPLY, involve, comprise, infold, import, denote, signify. IMPORTANCE, signification, significance, avail, consequence, weight, gravity, moment. IMPOSING, impressive, striking, majestic, august, noble, grand. (Insignificant.) IMPOTENCE, weakness, incapacity, infirmity, frailty, feebleness. (Power.) IMPOTENT, weak, feeble, helpless, enfeebled, nerveless, infirm. (Strong.) IMPRESSIVE, stirring, forcible, exciting, affecting, moving. IMPRISON, incarcerate, shut up, immure, confine. (Liberate.) IMPRISONMENT, captivity, durance. IMPROVE, amend, better, mend, reform, rectify, ameliorate, apply, use, employ. (Deteriorate.) IMPROVIDENT, careless, incautious, imprudent, prodigal, wasteful, reckless, rash. (Thrifty.) IMPUDENCE, assurance, impertinence, confidence, insolence, rudeness. IMPUDENT, saucy, brazen, bold, impertinent, forward, rude, insolent, immodest, shameless. IMPULSE, incentive, incitement, motive, instigation. IMPULSIVE, rash, hasty, forcible, violent. (Deliberate.) IMPUTATION, blame, censure, reproach, charge, accusation. INADVERTENCE, error, oversight, blunder, inattention, carelessness, negligence. INCENTIVE, motive, inducement, impulse. INCITE, instigate, excite, provoke, stimulate, encourage, urge, impel. INCLINATION, leaning, slope, disposition, tendency, bent, bias, affection, attachment. wish, liking, desire. (Aversion.) INCLINE, *v.*, slope, lean, slant, tend, bend, turn, bias, dispose. INCLOSE, surround, shut in, fence in, cover, wrap. INCLUDE, comprehend, comprise, contain, embrace, take in. INCOMMODE, annoy, plague, molest, disturb, inconvenience, trouble. (Accommodate.) INCOMPETENT, incapable, unable, inadequate, insufficient. (Competent.) INCREASE, *v.*, extend, enlarge, augment, dilate, expand, amplify, raise, enhance, aggravate, magnify, grow. (Diminish.) INCREASE, *n.*, augmentation, accession, addition, enlargement, extension. (Decrease.) INCUMBENT, obligatory. INDEFINITE, vague, uncertain, unsettled, loose, lax. (Definite.) INDICATE, point out, show, mark. INDIFFERENCE, apathy, carelessness, listlessness, insensibility. (Application, assiduity.) INDIGENCE, want, neediness, penury, poverty, destitution,

privation. (Affluence.) INDIGNATION, anger, wrath, ire, resentment. INDIGNITY, insult, affront, outrage, obloquy, opprobrium, reproach, ignominy. (Honor.) INDISCRIMINATE, promiscuous, chance, indistinct. confused. (Select, chosen.) INDISPENSABLE, essential, necessary, requisite, expedient. (Unnecessary, supernumerary.) INDISPUTABLE, undeniable, undoubted, incontestable, indubitable, unquestionable, sure, infallible. INDORSE, ratify, confirm, superscribe. INDULGE, foster, cherish, fondle. (Deny) INEFFECTUAL, vain, useless, unavailing, fruitless, abortive, inoperative. (Effective.) INEQUALITY, disparity, disproportion, dissimilarity, unevenness. (Equality.) INEVITABLE, unavoidable, not to be avoided, certain. INFAMOUS, scandalous, shameful, ignominious, opprobrious, disgraceful. (Honorable.) INFERENCE, deduction, corollary, conclusion, consequence. INFERNAL, diabolical, fiendish, devilish, hellish. INFEST, annoy, plague, harass, disturb. INFIRM, weak, feeble, enfeebled. (Robust.) INFLAME, anger, irritate, enrage, chafe, incense, nettle, aggravate, imbitter, exasperate. (Allay, soothe.) INFLUENCE, *v.*, bias, sway, prejudice, prepossess. INFLUENCE, *n.*, credit, favor, reputation, character, weight, authority, sway, ascendency. INFRINGE, invade, intrude, contravene, break, transgress, violate. INGENUOUS, artless, candid, generous, open, frank, plain, sincere. (Crafty.) INHUMAN, cruel, brutal, savage, barbarous, ruthless, merciless, ferocious. (Humane.) INIQUITY, injustice, wrong, grievance. INJURE, damage, hurt, deteriorate, wrong, aggrieve, harm, spoil, mar, sully. (Benefit.) INJURIOUS, hurtful, baneful, pernicious, deleterious, noxious, prejudicial, wrongful, damaging. (Beneficial.) INJUSTICE, wrong, iniquity, grievance. (Right.) INNOCENT, guiltless, sinless, harmless, inoffensive, innoxious. (Guilty.) INNOCUOUS, harmless, safe, innocent. (Hurtful.) INORDINATE, intemperate, irregular, disorderly, excessive, immoderate. (Moderate.) INQUIRY, investigation, examination, research, scrutiny, disquisition, question, query, interrogation. INQUISITIVE, prying, peeping, curious, peering. INSANE, mad, deranged, delirious, demented. (Sane.) INSANITY, madness, mental aberration, lunacy, delirium. (Sanity.) INSINUATE, hint, intimate, suggest, infuse, introduce, ingratiate. INSIPID, dull, flat, mawkish, tasteless, vapid, inanimate, lifeless. (Bright, sparkling.) INSOLENT, rude, saucy, pert, impertinent, abusive, scurrilous, opprobrious, insulting, offensive. INSPIRE, animate, exhilarate, enliven, cheer, breathe, inhale. INSTABILITY, mutability, fickleness, mutableness, wavering. (Stability, firmness.) INSTIGATE, stir up, persuade, animate, incite, urge, stimulate, encourage. INSTIL, implant, inculcate, infuse, insinuate. INSTRUCT, inform, teach, educate, enlighten, initiate. INTRUMENTAL, conducive, assistant, helping, ministerial. INSUFFICIENCY, inadequacy, incompetency, incapability, deficiency, lack. INSULT, affront, outrage, indignity, blasphemy. (Honor.) INSULTING, insolent, rude, saucy, impertinent, impudent, abusive. INTEGRITY, uprightness, honesty, probity, entirety, entireness, completeness, rectitude, purity. (Dishonesty.) INTELLECT, understanding, sense, brains, mind, intelligence, ability, talent, genius. (Body.) INTELLECTUAL, mental, ideal, metaphysical. (Brutal.) INTELLIGIBLE, clear, obvious, plain, distinct. (Abstruse.) INTEMPERATE, immoderate, excessive, drunken, nimious, inordinate. (Temperate.) INTENSE, ardent, earnest, glowing, fervid, burning, vehement. INTENT, design, purpose, intention, drift, view, aim, purport, meaning. INTERCOURSE, commerce, connection, intimacy, acquaintance. INTERDICT, forbid, prohibit, inhibit, proscribe, debar, restrain from. (Allow.) INTERFERE,

meddle, intermeddle, interpose. INTERMINABLE, endless, interminate, infinite, unlimited, illimitable, boundless, limitless. (Brief, concise.) INTERPOSE, intercede, arbitrate, meditate, interfere, meddle. INTERPRET, explain, expound, elucidate, unfold, decipher. INTIMATE, hint, suggest, insinuate, express, signify, impart, tell. INTIMIDATE, dishearten, alarm, frighten, scare, appal, daunt, cow, browbeat. (Encourage.) INTOLERABLE, insufferable, unbearable, insupportable, unendurable. INTREPID, bold, brave, daring, fearless, dauntless, undaunted, courageous, valorous, valiant, heroic, gallant, chivalrous, doughty. (Cowardly, faint-hearted.) INTRIGUE, plot, cabal, conspiracy, combination, artifice, ruse, *amour*. INTRINSIC, real, true, genuine, sterling, native, natural. (Extrinsic.) INVALIDATE, quash, cancel, overthrow, vacate, nulify, annul. INVASION, incursion, irruption, inroad, aggression, raid, fray. INVECTIVE, abuse, reproach, railing, censure, sarcasm, satire. INVENT, devise, contrive, frame, find out, discover, design. INVESTIGATION, examination, search, inquiry, research, scrutiny. INVETERATE, confirmed, chronic, malignant. (Inchoate.) INVIDIOUS, envious, hateful, odious, malignant. INVIGORATE, brace, harden, nerve, strengthen, fortify. (Enervate). INVINCIBLE, unconquerable, impregnable, insurmountable. INVISIBLE, unseen, imperceptible, impalpable, unperceivable. INVITE, ask, call, bid, request, allure, attract, solicit. INVOKE, invocate, call upon, appeal, refer, implore, beseech. INVOLVE, implicate, entangle, compromise, envelope. IRKSOME, wearisome, tiresome, tedious, annoying. (Pleasant.) IRONY, sarcasm, satire, ridicule, raillery. IRRATIONAL, foolish, silly, imbecile, brutish, absurd, ridiculous. (Rational.) IRREGULAR, eccentric, anomalous, inordinate, intemperate. (Regular.) IRRELIGIOUS, profane, godless, impious, sacrilegious, desecrating. IRREPROACHABLE, blameless, spotless, irreprovable. IRRESISTIBLE, resistless, irrepressible. IRRESOLUTE, wavering, undetermined, undecided, vacillating. (Determined.) IRRITABLE, excitable, irascible, susceptible, sensitive. (Calm.) IRRITATE, aggravate, worry, embitter, madden, exasperate. ISSUE, *v.*, emerge, rise, proceed, flow, spring, emanate. ISSUE, *n.*, end, upshot, effect, result, offspring, progeny.

JADE, harass, weary, tire, worry. JANGLE, wrangle, conflict, disagree. JARRING, conflicting, discordant, inconsonant, inconsistent. JAUNT, ramble, excursion, trip. JEALOUSY, suspicion, envy. JEOPARD, hazard, peril, endanger. JEST, joke, sport, divert, make game of. JOURNEY, travel, tour, passage. JOY, gladness, mirth, delight. (Grief.) JUDGE, justice, referee, arbitrator. JOYFUL, glad, rejoicing, exultant. (Mournful.) JUDGMENT, discernment, discrimination, understanding. JUSTICE, equity, right. Justice is right as established by law; equity according to the circumstances of each particular case. (Injustice.) JUSTNESS, accuracy, correctness, precision.

KEEP, preserve, save. (Abandon.) KILL, assassinate, murder, slay. KINDRED, affinity, consanguinity, relationship. KNOWLEDGE, erudition, learning, science. (Ignorance.)

LABOR, toil, work, effort, drudgery. (Idleness.) LACK, need, deficiency, scarcity, insufficiency. (Plenty.) LAMENT, mourn, grieve, weep. (Rejoice.) LANGUAGE, dialect, idiom, speech, tongue. LASCIVIOUS, loose, unchaste, lustful, lewd, lecherous. (Chaste.) LAST, final, latest, ultimate. (First.) LAUDABLE, commendable, praiseworthy. (Blamable.) LAUGHABLE, comical, droll, ludicrous. (Serious.) LAWFUL, legal, legitimate, licit. (Illegal.) LEAD, conduct, guide. (Follow.)

LEAN, meager. (Fat.) LEARNED, erudite, scholarly. (Ignorant.) LEAVE, *v.*, quit, relinquish. LEAVE, *n.*, liberty, permission, license. (Prohibition.) LIFE, existence, animation, spirit, vivacity. (Death.) LIFELESS, dead, inanimate. LIFT, erect, elevate, exalt, raise. (Lower.) LIGHT, clear, bright. (Dark.) LIGHTNESS, flightiness, giddiness, levity, volatility. (Seriousness.) LIKENESS, resemblance, similarity. (Unlikeness.) LINGER, lag, loiter, tarry, saunter. (Hasten.) LITTLE, diminutive, small. (Great.) LIVELIHOOD, living, maintenance, subsistence, support. LIVELY, jocund, merry, sportive, sprightly, vivacious. (Slow, languid, sluggish.) LONG, extended, extensive. (Short.) LOOK, appear, seem. LOSE, miss, forfeit. (Gain.) LOSS, detriment, damage, deprivation. (Gain.) LOUD, clamorous, high-sounding, noisy. (Low, quiet.) LOVE, affection. (Hatred.) LOW, abject, mean. (Noble.) LUNACY, derangement, insanity, mania, madness. (Sanity.) LUSTER, brightness, brilliancy, splendor. LUXURIANT, exuberant. (Sparse.)

MACHINATION, plot, intrigue, cabal, conspiracy. (Artlessness.) MAD, crazy, delirious, insane, rabid, violent, frantic. (Sane, rational, quiet.) MADNESS, insanity, fury, rage, frenzy. MAGISTERIAL, august, dignified, majestic, pompous, stately. MAKE, form, create, produce. (Destroy.) MALEDICTION, anathema, curse, imprecation, execration. MALEVOLENT, malicious, virulent, malignant. (Benevolent.) MALICE, spite, rancor, ill-feeling, grudge, animosity, ill-will. (Benignity.) MALICIOUS, see malevolent. MANACLE, *v.*, shackle, fetter, chain. (Free.) MANAGE, contrive, concert, direct. MANAGEMENT, direction, superintendence, care, economy. MANGLE, tear, lacerate, mutilate, cripple, maim. MANIA, madness, insanity, lunacy. MANIFEST, *v.*, reveal, prove, evince, exhibit, display, show. MANIFEST, *a.*, clear, plain, evident, open, apparent, visible. (Hidden, occult.) MANIFOLD, several, sundry, various, divers, numerous. MANLY, masculine, vigorous, courageous, brave, heroic. (Effeminate.) MANNER, habit, custom, way, air, look, appearance. MANNERS, morals, habits, behavior, carriage. MAR, spoil, ruin, disfigure. (Improve.) MARCH, tramp, tread, walk, step, space. MARGIN, edge, rim, border, brink, verge. MARK, *n.*, sign, note, symptom, token, indication, trace, vestige, track, badge, brand. MARK, *v.*, impress, print, stamp, engrave, note, designate. MARRIAGE, wedding, nuptials, matrimony, wedlock. MARTIAL, military, warlike, soldier-like. MARVEL, wonder, miracle, prodigy. MARVELOUS, wondrous, wonderful, amazing, miraculous. MASSIVE, bulky, heavy, weighty, ponderous, solid, substantial. (Flimsy.) MASTERY, dominion, rule, sway, ascendancy, supremacy. MATCHLESS, unrivaled, unequaled, unparalleled, peerless, incomparable, inimitable, surpassing. (Common, ordinary.) MATERIAL, *a.*, corporeal, bodily, physical, temporal, momentous, important. (Spiritual, immaterial.) MAXIM, adage, apophthegm, proverb, saying, by-word, saw. MEAGER, poor, lank, emaciated, barren, dry, uninteresting. (Rich.) MEAN, *a.*, stingy, niggardly, low, abject, vile, ignoble, degraded, contemptible, vulgar, despicable. (Generous.) MEAN, *v.*, design, purpose, intent, contemplate, signify, denote, indicate. MEANING, signification, import, acceptation, sense, purport. MEDIUM, organ, channel, instrument, means. MEDLEY, mixture, variety, diversity, miscellany. MEEK, unassuming, mild, gentle. (Proud.) MELANCHOLY, low-spirited, dispirited, dreamy, sad. (Jolly, buoyant.) MELLOW, ripe, mature, soft. (Immature.) MELODIOUS, tuneful, musical, silver, dulcet, sweet. (Discordant.) MEMORABLE,

signal, distinguished, marked. MEMORIAL, monument, memento, commemoration. MEMORY, remembrance, recollection. MENACE, *n.*, threat. MEND, repair, amend, correct, better, ameliorate, improve, rectify. MENTION, tell, name, communicate, impart, divulge, reveal, disclose, inform, acquaint. MERCIFUL, compassionate, lenient, clement, tender, gracious, kind. (Cruel.) MERCILESS, hard-hearted, cruel, unmerciful, pitiless, remorseless, unrelenting. (Kind.) MERRIMENT, mirth, joviality, jollity, hilarity. (Sorrow.) MERRY, cheerful, mirthful, joyous, gay, lively, sprightly, hilarious, blithe, blithesome, jovial, sportive, jolly. (Sad.) METAPHORICAL. figurative, allegorical, symbolical. METHOD, way, manner, mode, process, order, rule, regularity, system. MIEN, air, look, manner, aspect, appearance. MIGRATORY, roving, strolling, wandering, vagrant. (Settled, sedate, permanent.) MIMIC, imitate, ape, mock. MINDFUL, observant, attentive, heedful, thoughtful. (Heedless.) MISCELLANEOUS, promiscuous, indiscriminate, mixed. MISCHIEF, injury, harm, damage, hurt, evil, ill. (Benefit.) MISCREANT, caitiff, villain, ruffian. MISERABLE, unhappy, wretched, distressed, afflicted. (Happy.) MISERLY, stingy, niggardly, avaricious, grasping. MISERY, wretchedness, woe, destitution, penury, privation, beggary. (Happiness.) MISFORTUNE, calamity, disaster, mishap, catastrophe. (Good luck.) MISS, omit, lose, fail, miscarry. MITIGATE, alleviate, relieve, abate, diminish. (Aggravate.) MODERATE, temperate, abstemious, sober, abstinent. (Immoderate.) MODEST, chaste, virtuous, bashful, reserved. (Immodest.) MOIST, wet, damp, dank, humid. (Dry.) MONOTONOUS, unvaried, dull, tiresome, undiversified. (Varied.) MONSTROUS, shocking, dreadful, horrible, huge, immense. MONUMENT, memorial, record, remembrancer, cenotaph. MOOD, humor, disposition, vein, temper. MORBID, sick, ailing, sickly, diseased, corrupted. (Normal, sound.) MOROSE, gloomy, sullen, surly, fretful, crabbed, crusty. (Joyous.) MORTAL, deadly, fatal, human. MOTION, proposition, proposal, movement. MOTIONLESS, still, stationary, torpid, stagnant. (Active, moving.) MOUNT, arise, rise, ascend, soar, tower, climb, scale. MOURNFUL, sad, sorrowful, lugubrious, grievous, doleful, heavy. (Happy.) MOVE, actuate, impel, induce, prompt, instigate, persuade, stir, agitate, propel, push. MULTITUDE, crowd, throng, host, mob, swarm. MURDER, *v.*, kill, assassinate, slay, massacre, despatch. MUSE, *v.*, meditate, contemplate, think, reflect, cogitate, ponder. MUSIC, harmony, melody, symphony. MUSICAL, tuneful, melodious, harmonious, dulcet, sweet. MUSTY, stale, sour, fetid. (Fresh, sweet.) MUTE, dumb, silent, speechless. MUTILATE, maim, cripple, disable, disfigure. MUTINOUS, insurgent, seditious, tumultuous, turbulent, riotous. (Obedient, orderly.) MUTUAL, reciprocal, interchanged, correlative. (Sole, solitary.) MYSTERIOUS, dark, obscure, hidden, secret, dim, mystic, enigmatical, unaccountable. (Open, clear.) MYSTIFY, confuse, perplex, puzzle. (Clear, explain.)

NAKED, nude, bare, uncovered, unclothed, rough, rude, simple. (Covered, clad.) NAME, *v.*, denominate, entitle, style, designate, term, call, christen. NAME, *n.*, appellation, designation, denomination, title, cognomen, reputation, character, fame, credit, repute. NARRATE, tell, relate, detail, recount, describe, enumerate, rehearse, recite. NASTY, filthy, foul, dirty, unclean, impure, indecent, gross, vile. NATION, people, community, realm, state. NATIVE, indigenous, inborn, vernacular. NATURAL, original, regular, normal, bastard. (Unnatural, forced.) NEAR, nigh, neighboring, close, adjacent, contiguous, intimate. (Dis-

tant.) NECESSARY, needful, expedient, essential, requisite, indispensable. (Useless.) NECESSITATE, *v.*, compel, force, oblige. NECESSITY, need, occasion, exigency, emergency, urgency, requisite. NEED, *n.*, necessity, distress, poverty, indigence, want, penury. NEED, *v.*, require, want, lack. NEGLECT, *v.*, disregard, slight, omit, overlook. NEGLECT, *n.*, omission, failure, default, negligence, remissness, carelessness, slight. NEIGHBORHOOD, environs, vicinity, nearness, adjacency, proximity. NERVOUS, timid, timorous, shaky. NEW, fresh, recent, novel. (Old.) NEWS, tidings, intelligence, information. NICE, exact, accurate, good, particular, precise, fine, delicate. (Careless, coarse, unpleasant.) NIMBLE, active, brisk, lively, alert, quick, agile, prompt. (Awkward.) NOBILITY, aristocracy, greatness, grandeur, peerage. NOBLE, exalted, elevated, illustrious, great, grand, lofty. (Low.) NOISE, cry, outcry, clamor, row, din, uproar, tumult. (Silence.) NONSENSICAL, irrational, absurd, silly, foolish. (Sensible.) NOTABLE, plain, evident, remarkable, signal, striking, rare. (Obscure.) NOTE, *s.*, token, symbol, mark, sign, indication, remark, comment. NOTED, distinguished, remarkable, eminent, renowned. (Obscure.) NOTICE, *n.*, advice, notification, intelligence, information. NOTICE, *v.*, mark, note, observe, attend to, regard, heed. NOTIFY, *v.*, publish, acquaint, apprise, inform, declare. NOTION, conception, idea, belief, opinion, sentiment. NOTORIOUS, conspicuous, open, obvious, ill-famed. (Unknown.) NOURISH, nurture, cherish, foster, supply. (Starve, famish.) NOURISHMENT, food, diet, sustenance, nutrition. NOVEL, modern, new, fresh, recent, unused, strange, rare. (Old.) NOXIOUS, hurtful, deadly, poisonous, deleterious, baneful. (Beneficial.) NULLIFY, annul, vacate, invalidate, quash, cancel, repeal. (Affirm.) NUTRITION, food, diet, nutriment, nourishment.

OBDURATE, hard, callous, hardened, unfeeling, insensible. (Yielding, tractable.) OBEDIENT, compliant, submissive, dutiful, respectful. (Obstinate.) OBESE, corpulent, fat, adipose, fleshy. (Attenuated.) OBEY, *v.*, conform, comply, submit. (Rebel, disobey.) OBJECT, *s.*, aim, end, purpose, design, mark, butt. OBJECT, *v.*, oppose, except to, contravene, impeach, deprecate. (Assent.) OBNOXIOUS, offensive. (Agreeable.) OBSCURE, undistinguished, unknown. (Distinguished.) OBSTINATE, contumacious, headstrong, stubborn, obdurate. (Yielding.) OCCASION, opportunity. OFFENSE, affront, misdeed, misdemeanor, transgression, trespass. OFFENSIVE, insolent, abusive, obnoxious. (Inoffensive.) OFFICE, charge, function, place. OFFSPRING, issue, progeny. OLD, aged, superannuated, ancient, antique, antiquated, obsolete, old-fashioned. (Young, new.) OMEN, presage, prognostic. OPAQUE, dark. (Bright, transparent.) OPEN, candid, unreserved, clear, fair. (Hidden, dark.) OPINION, notion, view, judgment, belief, sentiment. OPINIONATED, conceited, egoistical. (Modest.) OPPOSE, resist, withstand, thwart. (Give way.) OPTION, choice. ORDER, method, rule, system, regularity. (Disorder.) ORIGIN, cause, occasion, beginning, source. (End.) OUTLIVE, survive. OUTWARD, external, outside, exterior. (Inner.) OVER, above. (Under.) OVERBALANCE, outweigh, preponderate. OVERBEAR, bear down, overwhelm, overpower, subdue. OVERBEARING, haughty, arrogant, proud. (Gentle.) OVERFLOW, inundation, deluge. OVERRULE, supersede, suppress. OVERSPREAD, overrun, ravage. OVERTURN, invert, overthrow, reverse, subvert. (Establish, fortify.) OVERWHELM, crush, defeat, vanquish.

PAIN, suffering, qualm, pang, agony, anguish. (Pleasure.) PALLID, pale, wan. (Florid.) PART, division, portion, share, fraction. (Whole.)

PARTICULAR, exact, distinct, odd, singular, strange. (General.) PATIENT, passive, submissive, meek. (Obdurate.) PEACE, calm, quiet, tranquility. (War, riot, trouble, turbulence.) PEACEABLE, pacific, peaceful, quiet. (Troublesome, riotous.) PENETRATE, bore, pierce, perforate. PENETRATION, acuteness, sagacity. (Dullness.) PEOPLE, nation, persons, folks. PERCEIVE, note, observe, discern, distinguish. PERCEPTION, conception, notion, idea. PERIL, danger, pitfall, snare. (Safety.) PERMIT, allow, tolerate. (Forbid.) PERSUADE, allure, entice, prevail upon. PHYSICAL, corporeal, bodily, material. (Mental.) PICTURE, engraving, print, representation, illustration, image. PITEOUS, doleful, woeful, rueful. (Joyful.) PITILESS, see merciless. PITY, compassion, sympathy. (Cruelty.) PLACE, *n.*, spot, site, position, post, situation, station. PLACE, *v.*, order, dispose. PLAIN, open, manifest, evident. (Secret.) PLAY, game, sport, amusement. (Work.) PLEASE, gratify, pacify. (Displease.) PLEASURE, charm, delight, joy. (Pain.) PLENTIFUL, abundant, ample, copious, plenteous. (Scarce.) POISE, balance. POSITIVE, absolute, peremptory, decided, certain. (Negative.) POSSESSOR, owner, master, proprietor. POSSIBLE, practical, practicable. (Impossible.) POVERTY, penury, indigence, need, want. (Wealth.) POWER, authority, force, strength, dominion. POWERFUL, mighty, potent. (Weak.) PRAISE, commend, extol, laud. (Blame.) PRAYER, entreaty, petition, request, suit. PRETENSE *n.*, pretext, subterfuge. PREVAILING, predominant, prevalent, general. (Isolated, sporadic.) PREVENT, *v.*, obviate, preclude. PREVIOUS, antecedent, introductory, preparatory, preliminary. (Subsequent.) PRIDE, vanity, conceit. (Humility.) PRINCIPALLY, chiefly, essentially, mainly. PRINCIPLE, ground, reason, motive, impulse, maxim, rule, rectitude, integrity. PRIVILEGE, immunity, advantage, favor, prerogative, exemption, right, claim. PROBITY, rectitude, uprightness, honesty, integrity, sincerity, soundness. (Dishonesty.) PROBLEMATICAL, uncertain, doubtful, dubious, questionable, disputable, suspicious. (Certain.) PRODIGIOUS, huge, enormous, vast, amazing, astonishing, astounding, surprising, remarkable, wonderful. (Insignificant.) PROFESSION, business, trade, occupation, vocation, office, employment, engagement, avowal. PROFFER, volunteer, offer, propose, tender. PROFLIGATE, abandoned, dissolute, depraved, vicious, degenerate, corrupt, demoralized. (Virtuous.) PROFOUND, deep, fathomless, penetrating, solemn, abstruse, recondite. (Shallow.) PROFUSE, extravagant, prodigal, lavish, improvident, excessive, copious, plentiful. (Succinct.) PROLIFIC, productive, generative, fertile, fruitful, teeming. (Barren.) PROLIX, diffuse, long, prolonged, tedious, tiresome, wordy, verbose, prosaic. (Concise, brief.) PROMINENT, eminent, conspicuous, marked, important, leading. (Obscure.) PROMISCUOUS, mixed, unarranged, mingled, indiscriminate. (Select.) PROMPT, see punctual. PROP, *v.*, maintain, sustain, support, stay. PROPAGATE, spread, circulate, diffuse, disseminate, extend, breed, increase. (Suppress.) PROPER, legitimate, right, just, fair, equitable, honest, suitable, fit, adapted, meet, becoming, befitting, decent, pertinent, appropriate. (Wrong.) PROSPER, flourish, succeed, grow rich, thrive, advance. (Fail.) PROSPERITY, well-being, weal, welfare, happiness, good luck. (Poverty.) PROXY, agent, representative, substitute, delegate, deputy. PRUDENCE, carefulness, judgment, discretion, wisdom. (Indiscretion.) PRURIENT, itching, craving, hankering, longing. PUERILE, youthful, juvenile, boyish, childish, infantile, trifling, weak, silly. (Mature.) PUNCTILIOUS, nice, particular, formal, precise. (Negligent.) PUNCTUAL, exact, pre-

cise, nice, particular, prompt, timely. (Dilatory.) PUTREFY, rot, decompose, corrupt, decay. PUZZLE, *v.*, perplex, confound, embarrass, bewilder, confuse, pose, mystify. (Enlighten.)

QUACK, impostor, pretender, charlatan, empiric, mountebank. (Savant.) QUAINT, artful, curious, far-fetched, fanciful, odd, singular. QUALIFIED, competent, fitted, adapted. (Incompetent.) QUALITY, attribute, rank, distinction. QUERULOUS, doubting, complaining, fretting, repining. (Patient.) QUESTION, query, inquiry, interrogatory. QUIBBLE, cavil, evade, equivocate, shuffle, prevaricate. QUICK, lively, ready, prompt, alert, nimble, agile, active, brisk, expeditious, adroit, fleet, rapid, swift, impetuous, sweeping, dashing, clever, sharp. (Slow.) QUOTE, note, repeat, cite, adduce.

RABID, mad, furious, raging, frantic. (Rational.) RACE, course, match, pursuit, career, family, clan, house, ancestry, lineage, pedigree. RACK, agonize, wring, torture, excruciate, distress, harass. (Soothe.) RACY, spicy, pungent, smart, spirited, lively, vivacious. (Dull, insipid.) RADIANCE, splendor, brightness, brilliance, brilliancy, luster, glare. (Dullness.) RADICAL, organic, innate, fundamental, original, constitutional, inherent, complete, entire. (Superficial. In a political sense, uncompromising; antonym, moderate.) RANCID, fetid, rank, stinking, sour, tainted, reasty. (Fresh, sweet.) RANCOR, malignity, hatred, hostility, antipathy, animosity, enmity, ill-will, spite. (Forgiveness.) RANK, order, degree, dignity, nobility, consideration. RANSACK, rummage, pillage, overhaul, explore, plunder. RANSOM, emancipate, free, unfetter. RANT, bombast, fustian, cant. RAPACIOUS, ravenous, voracious, greedy, grasping. (Generous.) RAPT, ecstatic, transported, ravished, entranced, charmed. (Distracted.) RAPTURE, ecstasy, transport, delight, bliss. (Dejection.) RARE, scarce, singular, uncommon, unique. RASCAL, scoundrel, rogue, knave, scamp, vagabond. RASH, hasty, precipitate, foolhardy, adventurous, heedless, reckless, careless. (Deliberate.) RATE, value, compute, appraise, estimate, chide, abuse. RATIFY, confirm, establish, substantiate, sanction. (Protest, oppose.) RATIONAL, reasonable, sagacious, judicious, wise, sensible, sound. (Unreasonable.) RAVAGE, overrun, overspread, desolate, despoil, destroy. RAVISH, enrapture, enchant, charm, delight, abuse. RAZE, demolish, destroy, overthrow, ruin, dismantle. (Build up.) REACH, touch, stretch, attain, gain, arrive at. READY, prepared, ripe, apt, prompt, adroit, handy, (Slow, dilatory.) REAL, actual, literal, practical, positive, certain, genuine, true. (Unreal.) REALIZE, accomplish, achieve, effect, gain, get, acquire, comprehend. REAP, gain, get, acquire, obtain. REASON, motive, design, end, proof, cause, ground, purpose. REASON, deduce, draw from, trace, infer, conclude. REASONABLE, rational, wise, honest, fair, right, just. (Unreasonable.) REBELLION, insurrection, revolt. RECANT, recall, abjure, retract, revoke. RECEDE, retire, retreat, withdraw, ebb. RECEIVE, accept, take, admit, entertain. RECEPTION. receiving, levee, receipt, admission. RECESS, retreat, depth, niche, vacation, intermission. RECREATION, sport, pastime, play, amusement, game, fun. REDEEM, ransom, recover, rescue, deliver, save, free. REDRESS, remedy, repair, remission, abatement, relief. REDUCE, abate, lessen, decrease, lower, shorten, conquer. REFINED, polite, courtly, polished, cultured, genteel, purified. (Boorish.) REFLECT, consider, cogitate, think, ponder, muse, censure. REFORM, amend, correct, better, restore, improve. (Corrupt.) REFORMATION, improvement, reform, amendment. (Corruption.) REFUGE, asylum, protection, harbor, shel-

ter, retreat. REFUSE, *v.*, deny, reject, repudiate, decline, withhold. (Accept.) REFUSE, *n.*, dregs, dross, scum, rubbish, leavings, remains. REFUTE, disprove, falsify, negative. (Affirm.) REGARD, *v.*, mind, heed, notice, behold, view, consider, respect. REGRET, *n.*, grief, sorrow, lamentation, repentance, remorse. REGULAR, orderly, uniform, customary, ordinary, stated. (Irregular.) REGULATE, methodize, arrange, adjust, organize, govern, rule. (Disorder.) REIMBURSE, refund, repay, satisfy, indemnify. RELEVANT, fit, proper, suitable, appropriate, pertinent, apt. (Irrelevant.) RELIANCE, trust, hope, dependence, confidence. (Suspicion.) RELIEF, succor, aid, help, redress, alleviation. RELINQUISH, give up, forsake, resign, surrender, quit, leave, forego. (Retain.) REMEDY, help, relief, redress, cure, specific, reparation. REMORSELESS, pitiless, relentless, cruel, ruthless, merciless, barbarous. (Merciful, humane.) REMOTE, distant, far, secluded, indirect. (Near.) REPRODUCE, propagate, imitate, represent, copy. REPUDIATE, disown, discard, disavow, renounce, disclaim. (Acknowledge.) REPUGNANT, antagonistic, distasteful. (Agreeable.) REPULSIVE, forbidding, odious, ugly, disagreeable, revolting. (Attractive.) RESPITE, reprieve, interval, stop, pause. REVENGE, vengeance, retaliation, requital, retribution. (Forgiveness.) REVENUE, produce, income, fruits, proceeds, wealth, REVERENCE, *n.*, honor, respect, awe, veneration, deference, worship, homage. (Execration.) REVISE, review, reconsider. REVIVE, refresh, renew, renovate, animate, resuscitate, vivify, cheer, comfort. RICH, wealthy, affluent, opulent, copious, ample, abundant, exuberant, plentiful, fertile, fruitful, superb, gorgeous. (Poor.) RIVAL, *n.*, antagonist, opponent, competitor. ROAD, way, highway, route, course, path, pathway, anchorage. ROAM, ramble, rove, wander, stray, stroll. ROBUST, strong, lusty, vigorous, sinewy, stout, sturdy, stalwart, able-bodied. (Puny.) ROUT, *v.*, discomfit, beat, defeat, overthrow, scatter. ROUTE, road, course, march, way, journey, path, direction. RUDE, rugged, rough, uncouth, unpolished, harsh, gruff, impertinent, saucy, flippant, impudent, insolent, churlish. (Polished, polite.) RULE, sway, method, system, law, maxim, precept, guide, formula, regulation, government, standard, test. RUMOR, hearsay, talk, fame, report, bruit. RUTHLESS, cruel, savage, barbarous, inhuman, merciless, remorseless, relentless, unrelenting. (Considerate.)

SACRED, holy, hallowed, divine, consecrated, dedicated, devoted. (Profane.) SAFE, secure, harmless, trustworthy, reliable. (Perilous, dangerous.) SANCTION, confirm, countenance, encourage, support, ratify, authorize. (Disapprove.) SANE, sober, lucid, sound, rational. (Crazy.) SAUCY, impertinent, rude, impudent, insolent, flippant, forward. (Modest.) SCANDALIZE, shock, disgust, offend, calumniate, vilify, revile, malign, traduce, defame, slander. SCANTY, bare, pinched, insufficient, slender, meager. (Ample.) SCATTER, strew, spread, disseminate, disperse, dissipate, dispel. (Collect.) SECRET, clandestine, concealed, hidden, sly, underhand, latent, private. (Open.) SEDUCE, allure, attract, decoy, entice, abduct, inveigle, deprave. SENSE, discernment, appreciation, view, opinion, feeling, perception, sensibility, susceptibility, thought, judgment, signification, import, significance, meaning, purport, wisdom. SENSIBLE, wise, intelligent, reasonable, sober, sound, conscious, aware. (Foolish.) SETTLE, arrange, adjust, regulate, conclude, determine. SEVERAL, sundry, divers, various, many. SEVERE, harsh, stern, stringent, unmitigated, rough, unyielding. (Lenient.) SHAKE, tremble, shudder, shiver, quake, quiver. SHALLOW, superficial, flimsy, slight.

(Deep, thorough.) SHAME, disgrace, dishonor. (Honor.) SHAMEFUL, degrading, scandalous, disgraceful, outrageous. (Honorable.) SHAMELESS, immodest, impudent, indecent, indelicate, brazen. SHAPE, form, fashion, mold, model. SHARE, portion, lot, division, quantity, quota, contingent. SHARP, acute, keen. (Dull.) SHINE, glare, glitter, radiate, sparkle. SHORT, brief, concise, succinct, summary. (Long.) SHOW, *v.*, indicate, mark, point out, exhibit, display. SHOW, *n.*, exhibition, representation, sight, spectacle. SICK, diseased, sickly, unhealthy, morbid. (Healthy.) SICKNESS, *n.*, illness, indisposition, disease, disorder. (Health.) SIGNIFICANT, *a.*, expressive, material, important. (Insignificant.) SIGNIFICATION, import, meaning, sense. SILENCE, speechlessness, dumbness. (Noise.) SILENT, dumb, mute, speechless. (Talkative.) SIMILE, comparison, similitude. SIMPLE, single, uncompounded, artless, plain. (Complex, compound.) SIMULATE, dissimulate, dissemble, pretend. SINCERE, candid, hearty, honest, pure, genuine, real. (Insincere.) SITUATION, condition, plight, predicament, state, position. SIZE, bulk, greatness, magnitude, dimension. SLAVERY, servitude, enthrallment, thralldom. (Freedom.) SLEEP, doze, drowse, nap, slumber. SLEEPY, somnolent, (Wakeful.) SLOW, dilatory, tardy. (Fast.) SMELL, fragrance, odor, perfume, scent. SMOOTH, even, level, mild. (Rough.) SOAK, drench, imbrue, steep. SOCIAL, sociable, friendly, communicative. (Unsocial.) SOFT, gentle, meek, mild. (Hard.) SOLICIT, importune, urge. SOLITARY, sole, only, single. SORRY, grieved, poor, paltry, insignificant. (Glad, respectable.) SOUL, mind, spirit. (Soul is opposed to body, mind to matter.) SOUND, *v.*, healthy, sane. (Unsound.) SOUND, *n.*, tone, noise. (Silence.) SPACE, room. SPARSE, scanty, thin. (Luxuriant.) SPEAK, converse, talk, confer, say, tell. SPECIAL, particular, specific. (General.) SPEND, expend, exhaust, consume, waste, squander, dissipate. (Save.) SPORADIC, isolated, rare. (General, prevalent.) SPREAD, disperse, diffuse, expand, disseminate, scatter. SPRING, fountain, source. STAFF, prop, support, stay. STAGGER, reel, totter. STAIN, soil, discolor, spot, sully, tarnish. STATE, commonwealth, realm. STERILE, barren, unfruitful. (Fertile.) STIFLE, choke, suffocate, smother. STORMY, rough, boisterous, tempestuous. (Calm.) STRAIGHT, direct, right. (Crooked.) STRAIT, *a.*, narrow, confined. STRANGER, alien, foreigner. (Friend.) STRENGTHEN, fortify, invigorate. (Weaken.) STRONG, robust, sturdy, powerful. (Weak.) STUPID, dull, foolish, obtuse, witless. (Clever.) SUBJECT, exposed to, liable, obnoxious. (Exempt.) SUBJECT, inferior, subordinate. (Superior to, above.) SUBSEQUENT, succeeding, following. (Previous.) SUBSTANTIAL, solid, durable. (Unsubstantial.) SUIT, accord, agree. (Disagree.) SUPERFICIAL, flimsy, shallow, untrustworthy. (Thorough.) SUPERFLUOUS, unnecessary, excessive. (Necessary.) SURROUND, encircle, encompass, environ. SUSTAIN, maintain, support. SYMMETRY, proportion. SYMPATHY, commiseration, compassion, condolence. SYSTEM, method, plan, order. SYSTEMATIC, orderly, regular, methodical. (Chaotic.)

TAKE, accept, receive. (Give.) TALKATIVE, garrulous, loquacious, communicative. (Silent.) TASTE, flavor, relish, savor. (Tastelessness.) TAX, custom, duty, impost, excise, toll. TAX, assessment, rate. TEASE, taunt, tantalize, torment, vex. TEMPORARY, *a.*, fleeting, transient, transitory. (Permanent.) TENACIOUS, pertinacious, retentive. TENDENCY, aim, drift, scope. TENET, position, view, conviction, belief. TERM, boundary, limit, period, time. TERRITORY, dominion. THANK-

FUL, grateful, obliged. (Thankless.) THANKLESS, ungracious, profitless, ungrateful, unthankful. THAW, melt, dissolve, liquefy. (Freeze.) THEATRICAL, dramatic, showy, ceremonious, meretricious. THEFT, robbery, depredation, spoliation. THEME, subject, topic, text, essay. THEORY, speculation, scheme, plea, hypothesis, conjecture. THEREFORE, accordingly, consequently, hence. THICK, dense, close, compact, solid, coagulated, muddy, turbid, misty, foggy, vaporous. (Thin.) THIN, slim, slender, slight, flimsy, lean, attenuated, scraggy. THINK, cogitate, consider, reflect, ponder, contemplate, meditate, muse, conceive, fancy, imagine, apprehend, hold, esteem, reckon, consider, regard, deem, believe, opine. THOROUGH, accurate, correct, trustworthy, reliable, complete. (Superficial.) THOUGHT, idea, conception, imagination, fancy, conceit, notion, supposition, care, provision, consideration, opinion, view, sentiment, reflection, deliberation. THOUGHTFUL, considerate, careful, cautious, heedful, contemplative, reflective, provident, pensive, dreamy. (Thoughtless.) THOUGHTLESS, inconsiderate, rash, precipitate, improvident, heedless. TIE, *v.*, blind, restrain, restrict, oblige, secure, unite, join. (Loose.) TIE, *n.*, band, ligament, ligature. TIME, duration, season, period, era, age, date, span, spell. TOLERATE, allow, admit, receive, suffer, permit, let, endure, abide. (Oppose.) TOP, summit, apex, head, crown, surface. (Bottom, base.) TORRID, burning, hot, parching, scorching, sultry. TORTUOUS, twisted, winding, crooked, indirect. TORTURE, torment, anguish, agony. TOUCHING, tender, affecting, moving, pathetic. TRACTABLE, docile, manageable, amenable. TRADE, traffic, commerce, dealing, occupation, employment, office. TRADITIONAL, oral, uncertain, transmitted. TRAFFIC, trade, exchange, commerce, intercourse. TRAMMEL, *n.*, fetter, shackle, clog, bond, chain, impediment, hindrance. TRANQUIL, still, unruffled, peaceful, quiet, hushed. (Noisy, boisterous.) TRANSACTION, negotiation, occurrence, proceeding, affair. TRASH, nonsense, twaddle, trifles, dross. TRAVEL, trip, ramble, peregrination, excursion, journey, tour, voyage. TREACHEROUS, traitorous, disloyal, treasonable, faithless, false-hearted, perfidious, sly, false. (Trustworthy, faithful.) TRITE, stale, old, ordinary, commonplace, hackneyed. (Novel.) TRIUMPH, achievement, ovation, victory, conquest, jubilation. (Failure, defeat.) TRIVIAL, trifling, petty, small, frivolous, unimportant, insignificant. (Important.) TRUE, genuine, actual, sincere, unaffected, true-hearted, honest, upright, veritable, real, veracious, authentic, exact, accurate, correct. TUMULTUOUS, turbulent, riotous, disorderly, disturbed, confused, unruly. (ORDERLY.) TRUE, tone, air, melody, strain. TURBID, foul, thick, muddy, impure, unsettled. (Placid.) TYPE, emblem, symbol, figure, sign, kind, sort, better. TYRO, novice, beginner, learner.

UGLY, unsightly, plain, homely, ill-favored, hideous. (Beautiful.) UMBRAGE, offence, dissatisfaction, displeasure, resentment. UMPIRE, referee, arbitrator, judge, arbiter. UNANIMITY, accord, agreement, unity, concord. (Discord.) UNANIMOUS, agreeing, like-minded. UNBRIDLED, wanton, licentious, dissolute, loose, lax. UNCERTAIN, doubtful, dubious, questionable, fitful, equivocal, ambiguous, indistinct, variable, flunctuating. UNCIVIL, rude, discourteous, disrespectful, disobliging. (Civil.) UNCLEAN, dirty, foul, filthy, sullied. (Clean.) UNCOMMON, rare, strange, scarce, singular, choice. (Common, ordinary.) UNCONCERNED, careless, indifferent, apathetic. (Anxious.) UNCOUTH, strange, odd, clumsy, ungainly. (Graceful.) UNCOVER, reveal, strip, expose, lay bare. divest. (Hide.) UNDER, below, underneath, beneath, subordinate, lower,

inferior. (Above.) UNDERSTANDING, knowledge, intellect, intelligence, faculty, comprehension, mind, reason, brains. UNDERTAKE, engage in, embark in, agree, promise. UNDO, annul, frustrate, untie, unfasten, destroy. UNEASY, restless, disturbed, unquiet, stiff, awkward. (QUIET.) UNEQUAL, uneven, not alike, irregular, insufficient. (Even.) UNEQUALED, matchless, unique, novel, new, unheard of. UNFAIR, wrongful, dishonest, unjust. (Fair.) UNFIT, *a.*, improper, unsuitable, inconsistent, untimely, incompetent. (Fit.) UNFIT, *v.*, disable, incapacitate, disqualify. (Fit.) UNFORTUNATE, calamitous, ill-fated, unlucky, wretched, unhappy, miserable. (Fortunate.) UNGAINLY, clumsy, awkward, lumbering, uncouth. (Pretty.) UNHAPPY, miserable, wretched, distressed, afflicted, painful, disastrous, drear, dismal. (Happy.) UNIFORM, regular, symmetrical, equal, even, alike, unvaried. (Irregular.) UNINTERRUPTED, continuous, perpetual, unceasing, incessant, endless. (Intermittent.) UNION, junction, combination, alliance, confederacy, league, coalition, agreement, concert. (Disunion, separation.) UNIQUE, unequal, uncommon, rare, choice, matchless. (Common, ordinary.) UNITE, join, conjoin, combine, concert, add, attach, incorporate, embody, clench, merge. (Separate, disrupt, sunder.) UNIVERSAL, general, all, entire, total, catholic. (Sectional.) UNLIMITED, absolute, undefined, boundless, infinite. (Limited.) UNREASONABLE, foolish, silly, absurd, preposterous, ridiculous. UNRIVALED, unequaled, unique, unexampled, incomparable, matchless. (Mediocre.) UNROLL, unfold, open, discover. UNRULY, ungovernable, unmanageable, refractory. (Tractable, docile.) UNUSUAL, rare, unwonted, singular, uncommon, remarkable, strange, extraordinary. (Common.) UPHOLD, maintain, defend, sustain, support, vindicate. (Desert, abandon.) UPRIGHT, vertical, perpendicular, erect, just, equitable, fair, pure, honorable. (Prone, horizontal.) UPRIGHTNESS, honesty, integrity, fairness, goodness, probity, virtue, honor. (Dishonesty.) URGE, incite, impel, push, drive, instigate, stimulate, press, induce, solicit. URGENT, pressing, important, imperative, immediate, serious, wanted. (Unimportant.) USAGE, custom, fashion, practice, prescription. USE, *n.*, usage, practice, habit, custom, avail, advantage, utility, benefit, application. (Disuse, desuetude.) USE, *v.*, employ, exercise, occupy, practise, accustom, inure. (Abuse.) USEFUL, advantageous, serviceable, available, helpful, beneficial, good. (Useless.) USELESS, unserviceable, fruitless, idle, profitless. (Useful.) USUAL, ordinary, common, accustomed, habitual, wonted, customary, general. (Unusual.) USURP, arrogate, seize, appropriate, assume. UTMOST, farthest, remotest, uttermost, greatest. UTTER, *a.*, extreme, excessive, sheer, mere, pure. UTTER, *v.*, speak, articulate, pronounce, express, issue. UTTERLY, totally, completely, wholly, quite, altogether, entirely.

VACANT, empty, unfilled, unoccupied, thoughtless, unthinking. (Occupied.) VAGRANT, *n.*, wanderer, beggar, tramp, vagabond, rogue. VAGUE, unsettled, undetermined, uncertain, pointless, indefinite. (Definite.) VAIN, useless, fruitless, empty, worthless, inflated, proud, conceited, unreal, unavailing. (Effectual, humble, real.) Valiant, brave, bold, valorous, courageous, gallant. (Cowardly.) VALID, weighty, strong, powerful, sound, binding, efficient. (Invalid.) VALOR, courage, gallantry, boldness, bravery, heroism. (Cowardice.) VALUE, *v.*, appraise, assess, reckon, appreciate, estimate, prize, esteem, treasure. (Despise, condemn.) VANISH, disappear, fade, melt, dissolve. VANITY, emptiness, conceit, self-conceit, affectedness. VAPID, dull, flat, insipid, stale, tame. (Sparkling.) VAPOR, fume, smoke, mist, fog, steam.

VARIABLE, changeable, unsteady, inconstant, shifting, wavering, fickle, restless, fitful. (Constant.) VARIETY, difference, diversity, change, diversification, mixture, medley, miscellany. (Sameness, monotony.) VAST, spacious, boundless, mighty, enormous, immense, colossal, gigantic, huge, prodigious. (Confined.) VAUNT, boast, brag, puff, hawk, advertise, flouris parade. VENERABLE, grave, sage, wise, old, reverend. VENIAL, pardonable, excusable, justifiable. (Grave, serious.) VENOM, poison, virus, spite, malice, malignity. VENTURE, *n.*, speculation, chance, peril, stake. VENTURE, *v.*, dare, adventure, risk, hazard, jeopardize. VERACITY, truth, truthfulness, credibility, accuracy. (Falsehood.) VERBAL, oral, spoken, literal, parole. (Unwritten.) VERDICT, judgment, finding, decision, answer. VEXATION, chagrin, mortification. (Pleasure.) VIBRATE, oscillate, swing, sway, wave, undulate, thrill. VICE, vileness, corruption, depravity, pollution, immorality, wickedness, guilt, iniquity, crime. (Virtue.) VICIOUS, corrupt, depraved, debased, bad, contrary, unruly, demoralized, profligate, faulty. (Virtuous, gentle.) VICTIM, sacrifice, food, prey, sufferer, dupe, gull. VICTUALS, viands, bread, meat, provisions, fare, food, repast. VIEW, prospect, survey. VIOLENT, boisterous, furious, impetuous, vehement. (Gentle.) VIRTUOUS, upright, honest, moral. (Profligate.) VISION, apparition, ghost, phantom, spectre. VOLUPTUARY, epicure, sensualist. VOTE, suffrage, voice. VOUCH, affirm, asseverate, assure, aver.

WAIT, await, expect, look for, wait for. WAKEFUL, vigilant, watchful. (Sleepy.) WANDER, range, ramble, roam, rove, stroll. WANT, lack, need. (Abundance.) WARY, circumspect, cautious. (Foolhardy.) WASH, clean, rinse, wet, moisten, stain, tint. WASTE, *v.*, squander, dissipate, lavish, destroy, decay, dwindle, wither. WASTEFUL, extravagant, profligate. (Economical.) WAY, method, plan, system, means, manner, mode. form, fashion, course, process, road, route, track, path, habit, practice. WAVE, breaker, billow, surge. WEAK, feeble, infirm. (Strong.) WEAKEN, debilitate, enfeeble, enervate, invalidate. (Strengthen.) WEARISOME, tedious, tiresome. (Interesting, entertaining.) WEARY, harass, jade, tire, fatigue. (Refresh.) WEIGHT, gravity, heaviness. (Lightness.) WEIGHT, burden, load. WELL-BEING, happiness, prosperity, welfare. WHOLE, entire, complete, total, integral. (Part.) WICKED, iniquitous, nefarious. (Virtuous.) WILL, wish, desire. WILLINGLY, spontaneously, voluntarily. (Unwillingly.) WIN, get, obtain, gain, procure, effect, realize, accomplish, achieve. (Lose.) WINNING, attractive, charming, fascinating, bewitching, enchanting, dazzling, brilliant. (Repulsive.) WISDOM, prudence, foresight, farsightedness, sagacity. (Foolishness.) WIT, humor, satire, fun, raillery. WONDER, *v.*, admire, amaze, astonish, surprise. WONDER, *n.*, marvel, miracle, prodigy. WORD, *n.*, expression, term. WORK, labor, task, toil. (Play.) WORTHLESS, valueless. (Valuable.) WRITER, author, penman. WRONG, injustice, injury. (Right.)

YAWN, gape, open wide. YEARN, hanker after, long for, desire, crave. YELL, bellow, cry out, scream. YELLOW, golden, saffron-like. YELP, bark, sharp cry, howl. YET, besides, nevertheless, notwithstanding, however, still, ultimately, at last, so far, thus far. YIELD, bear, give, afford, impart, communicate, confer, bestow, abdicate, resign, cede, surrender, relinquish, relax, quit, forego, give up, let go, waive, comply, accede, assent, acquiesce, succumb, submit. YIELDING, supple, pliant, bending, compliant, submissive, unresisting. (Obstinate.) YOKE, *v.*, couple, link, connect. YORE, long ago, long since. YOUNG, juve-

nile, inexperienced, ignorant, youthful. YOUTH, boy, lad, minority, adolescence, juvenility. YOUTHFUL, young, juvenile, boyish, girlish, puerile. (Old.)

ZEAL, energy, fervor, ardor, earnestness, enthusiasm, eagerness. (Indifference.) ZEALOUS, warm, ardent, fervent, enthusiastic, anxious, (Indifferent, careless.) ZEST, relish, gusto, flavor. (Disgust.)

FOREIGN PHRASES INTERPRETED.

INCLUDING QUOTATIONS FROM LIVING AND DEAD LANGUAGES.

While it is not considered good form to interlard one's discourse with phrases culled from foreign languages, there are many cases wherein a thought is more aptly and strikingly put in Latin or French than in English. When this is the case, it is certainly permissible to use that which gives the best expression to the thought. It is also well to have at hand a comprehensive dictionary that will show at a glance just what a word, phrase or sentence in a foreign tongue means. The pages which follow contain the most complete lexicon of the kind ever published.

A bas, F., down with.
Ab extra, L., from without.
Ab initio, L., from the beginning.
Ab intra, L., from within.
Ab normis sapiens, L., wise, without teaching.
Ab origine, L., from the origin.
Ab ovo, L., from the egg.
Absente reo, L., the accused being absent.
Ab uno disce omnes, L., from one judge all.
Ab urbo condita, L., from the founding of the city.
A compte, F., on account.
A corps perdu, F., headlong.
Ad aperturam, L., at the opening.
Ad astra per aspera, L., to the stars through difficulties. (The motto of Kansas.)
Ad Calendas Graecas, L., at the Greek calends; meaning never, as the Greeks had no calends.
Ad captandum vulgus, L., to catch the vulgar.
Ad eundem, L., to the same (degree.)
Ad extremum, L., to the extreme.
Ad finem, L., to the end.
Ad infinitum, L., to infinity.
Ad interim, L., in the meantime.
A discrétion, F., at discretion.
Ad libitum, L., at pleasure.
Ad literam, L., (even) to the letter.
Ad modum, L., after the manner of.
Ad nauseum, L., to disgust.
Ad referendum, L., for reconsideration.
Ad rem, L., to the point.
Ad unum omnes, L., every one.
Ad valorem, L., according to value.
Ad vitam aut culpam, L., for life or for fault.
Æquo animo, L., with mind content.
Ætatis suæ, L., of his (or her) age.
Affaire d'amour, F., a love affair.
Affaire d'honneur, F., a duel.
Affaire de cœur, F., an affair of the heart.
A fortiori, L., for stronger reason.
A la campagne, F., as in the country.
A la Francaise, F., after the French (manner.)
A l'Anglaise, F., after the English (manner.)
A la mòde, F., after the fashion.
Alere flamman, L., to feed the flame.
Al fresco, It., in the open air.
Alis volat propriis, L., she flies with her own wings. (The motto of Oregon.)
Allez vous en, F., begone.
Allons, F., come.
Alma mater, L., benign mother.
Alter ego, L., another self.
Alter idem, L., another similar.
Amende honorable, F., an apology.
A mense et thoro, L., from bed and board.
Amor patriæ, L., patriotism.
Amour propre, F., self-love.
Ancien régime, F., the old rule.
Anglice, L., in English.
Animis opibusque parati, L., prepared with our lives and our money. (Motto of South Carolina.)
Anno ætatis suæ, L., in the year of his (or her) age.
Anno Christi, L., in the year of Christ.
Anno Domini, L., in the year of our Lord.
Anno mundi, L., in the year of the world.
Annus mirabilis, L., the wonderful year.
Ante bellum, L., before the war.
Ante lucem, L., before the light.
Ante meridiem, L., before noon.
A l'outrance, F., to the death.
Apercu, F., sketch.
Aplomb, F., firmly; perpendicularly.
A posteriori, L., reasoning from effect to cause.
A priori, L., reasoning from cause to effect.
A propos, F., to the point; by-the-by.
Aqua vitæ, L., water of life; alcohol.
Argumentum ad hominem, L., an argument to the man.
Argumentum ad ignorantiam, L., an argument for the ignorant.
Argumentum ad baculum, L., an argument with a cudgel.
Arrière pensée, F., an after-thought.
Ars est celare artem, L., art is to conceal art.

Ars longa, vita brevis est, L., art is long, life is short.
Asinus ad lyram, L., an ass with a harp; an absurdity.
A teneris annis, L., from tender years.
Audaces fortuna juvat, L., fortune favors the bold.
Aude sapere, L., dare to be wise.
Audi alteram partem, L., hear the other side.
Au fait, F., expert.
Au fond, F., at the bottom.
Au pis aller, F., at the worst.
Aura popularis, L., the wind of public favor.
Aurea mediocritas, L., the golden mean.
Au reste, F., for the rest.
Au revoir, F., till the next meeting.
Aussitot dit, aussitot fait, F., no sooner said than done.
Aut amat aut odit mulier, L., a woman either loves or hates.
Aut Cæsar aut nullus, L., either Cæsar or nobody.
Auto da fe, Portuguese, an act of faith; burning a heretic.
Auto de se, L., suicide.
Au troisième, F., on the third floor.
Aut vincere aut mori, L., either to conquer or die.
Aux armes, F., to arms.
Avant-coureur, F., a forerunner.
Avant-propos, F., a preface.
Avec permission, F., with permission.
A verbis ad verbera, L., from words to blows.
A vinculo matrimonii, L., from the bond of marriage.
A volonté, F., at pleasure.
A votre santé, F., to your health.

Bas bleu, F., a blue-stocking.
Beau ideal, F., an ideal beauty.
Beau monde, F., the fashionable world.
Beaux esprits, F., men of wit.
Beaux yeux, F., beautiful eyes.
Bel esprit, F., a brilliant mind.
Bête noire, F., a bugbear.
Bien séance, F., politeness.
Billet doux, F., a love-letter.
Bis dat qui cito dat, L., he gives twice who gives quickly.
Blasé, F., surfeited.
Bon ami, F., good friend.
Bonbon, F., candy.
Bon grè mal grè, F., willing or unwilling.
Bonhomie, F., good nature.
Bonis avibus, L., with lucky omens.
Bon jour, good day.
Bonne, F., nurse.
Bonne foi, F., good faith.
Bon soir, F., good evening.
Brevi manu, L., immediately.
Brutum fulmen, L., harmless thunder.

Cacoëthes loquendi, L., an itch for speaking.
Cacoëthes scribendi, L., an itch for writing.
Cætera desunt, L., the remainder wanting.
Cæteris paribus, L., other things being equal.
Candida pax, L., white-robed peace.
Caput, L., head.
Caput mortuum, L., the dead body.
Carpe diem, L., be merry to-day.
Cassis tutissima virtus, L., virtue is the safest shield.
Casus belli, L., a cause for war.
Catalogue raisonné, F., a topical catalogue.
Causa sine qua non, L., an indispensable condition.
Cedant arma togæ, L., let arms yield to the gown.
Ce n'est que le premier pas qui coute, F., the first step alone is difficult.
C'est á dire, F., that is to say.
Chacun á son gout, F., every man to his taste.
Chef, F., the head; the leading person or part.
Chef de bataillon, F., a major.
Chef de cuisine, F., head cook.
Chef-d'œuvre, F., a masterpiece.
Chère amie, F., a dear friend; a mistress.
Chevalier d'industrie, F., knight of industry; one who lives by his wits.
Chiaroscuro, It., distribution of light and shade in painting.
Cicerone, It., a guide who explains curiosities.
Cicisbeo, It., a male attendant on a married lady.
Ci-devant, F., formerly; heretofore.
Cogito, ergo sum, L., I think, therefore, I exist.
Colubrem in sinu favere, L., to cherish a serpent in one's bosom.
Comme il faut, F., as it should be.
Compagnon de voyage, F., a traveling companion.
Compos mentis, L., sound of mind.
Compte rendu, F., account rendered; report.
Comte, F., count.
Comtesse, F., countess.
Con amore, L., with love or great pleasure, earnestly.
Con commodo, It., at a convenient rate.
Conditio sine qua non, L., a necessary condition.
Confrère, F., a brother of the same monastery; an associate.
Congé d'elire, F., leave to elect.
Conquiescat in pace, L., may he rest in peace.
Conseil de famille, F., a family consultation.
Conseil d'etat, F., a counsel of state; a privy council.
Contantia et virtute, L., by constancy and virtue.
Consuetudo pro lege servatur, L., custom is observed as law.
Contra bonos mores, L., against good morals or manners.
Coram nobis, L., before us.
Coram non judice, L., before one not the proper judge.
Corps de garde, F., a body of men who watch in a guard room; the guard-room itself.
Corps diplomatique, F., a diplomatic body.
Corpus Christi, L., Christ's body.
Corpus delicti, L., the body, substance or foundation of the offence.
Corrigenda, L., corrections to be made.

Couleur de rose, F., rose-color; an aspect of beauty and attractiveness.
Coup d'essai, F., a first attempt.
Coup d'état, F., a stroke of policy in state affairs.
Coup de grâce, F., the finishing stroke.
Coup de main, F., a sudden attack; a bold effort.
Coup d'œil, F., a slight view; a glance.
Coup de théatre, F., a theatrical effect; claptrap.
Coute qu'il coute, F., let it cost what it may.
Credula res amor est, L., love is a credulous affair.
Crescite et multiplicamini, L., grow, or increase, and multiply. (The motto of Maryland.)
Crimen læsæ majestatis, L., the crime of high treason.
Cui bono? L., for whose benefit is it? what good will it do?
Cul de sac, F., the bottom of a bag; a place closed at one end.
Cum grano salis, L., with a grain of salt; with some allowance.
Cum privilegio, L., with privilege.
Currente calamo, L., with a running or rapid pen.
Custos rotulorum, L., the keeper of the rolls.

Da capo, It., from the beginning.
D'accord, F., agreed; in tune.
Damnant quod non intelligunt, L., they condemn what they do not understand.
De bonne grace, F., with good grace; willingly.
De die in diem, L., from day to day.
De facto, L., from the fact; really.
Dégagé, F., easy and unconstrained.
Dei gratia, L., by the grace of God.
Dejeuner a la fourchette, F., a meat breakfast.
De jure, L., from the law; by right.
Delenda est Carthago, L., Carthage must be blotted out or destroyed.
De mortuis nil nisi bonum, L., let nothing but good be said of the dead.
De nihilo nihil fit, L., of nothing, nothing is made.
De novo, L., anew; over again from the beginning.
Deo gratias, L., thanks to God.
Deo juvante, L., with God's help.
Deo, non fortuna, L., from God, not from fortune.
Deo volente, L., God willing; by God's will; usually contracted into *D. V.*
De profundis, L., out of the depths.
Dernier ressort, F., a last resource.
De bonis non, L., of the goods not administered on.
De gustibus non est disputandum, L., there is no disputing about tastes.
Désagrément, F., something disagreeable.
Desideratum, L., a thing desired.
Desunt cætera, L., the other things are wanting; the remainder is wanting.
De trop, F., too much, or too many; not wanted.
Dies iræ, L., the day of wrath.
Dies non, L., *in law*, a day on which judges do not sit.
Dieu défend le droit, F., God defends the right.
Dieu et mon droit, F., God and my right.
Dignus vindice nodus, L., a knot worthy to be untied by such an avenger, or by such hands.
Dii penates, L., household gods.
Dii majores, L., the greater gods.
Dii minores, L., the lesser gods.
Dirigo, L., I direct or guide. (The motto of Maine.)
Disjecta membra, L., scattered limbs or remains.
Distingué, F., distinguished; eminent.
Distrait, F., absent in thought.
Divertissement, F., amusement, sport.
Divide et impera, L., divide and rule.
Dolce far niente, It., sweet doing-nothing; sweet idleness.
Double entente, F., double meaning; a play on words; a word or phrase susceptible of more than one meaning. (Incorrectly written, *double entendre.*)
Dramatis personæ, L., the characters or persons represented in a drama.
Droit des gens, F., the law of nations.
Dulce domun, L., sweet home; homewards.
Dulce est desipere in loco, L., it is pleasant to jest or be merry at the proper time.
Dulce et decorum est pro patria mori, L., it is sweet and becoming to die for one's country.
Dum spiro, spero, L., while I breathe, I hope.
Dum vivimus, vivamus, L., while we live, let us live.

Eau de Cologne, F., a perfumed liquid; Cologne water.
Eau de vie, F., water of life; brandy.
Ecce homo, L., behold the man. (Applied to a picture representing our Lord given up to the Jews by Pilate, and wearing a crown of thorns.)
Editio princeps, L., the first edition.
Egalité, F., equality.
Ego et rex meus, L., I and my king.
Eldorado, Sp., the golden land.
Emigré, F., an emigrant.
Empressement, F., ardor; zeal.
En arrière, F., in the rear; behind.
En attendant, F., in the meanwhile.
En avant, F., forward.
En deshabille, F., in undress.
En échelon, F., in steps; like stairs.
En famille, F., in a domestic state.
Enfans perdus, F., lost children; *in mil.*, the forlorn hope.
En grande tenue, F., in full dress.
En masse, F., in a body.
En passant, F., in passing; by the way.
En rapport, F., in relation; in connection.
En règle, F., in order; according to rules.
En route, F., on the way.
Ense petit placidem sub libertate quietem, L., with the sword she seeks quiet peace under liberty. (The motto of Massachusetts.)
En suite, F., in company.
Entente cordiale, F., evidence of good-will

towards each other, exchanged by the chief persons of two states.
Entourage, F., surroundings; adjuncts.
En tout, F., in all; wholly.
Entrée, F., entrance; first course at meals; freedom of access.
Entremets, F., dainties; small dishes.
Entrepot, F., a warehouse, a place for depositing goods.
Entre nous, F., between ourselves.
Entresol, F., a suite of apartments between the basement or ground floor and the second floor.
En vérité, F., in truth; verily.
E pluribus unum, L., one composed of many. (The motto of the United States, as one government formed of many independent States.
Errare est humanum, L., to err is human.
Esprit borné, F., a narrow, contracted mind.
Esprit du corps, F., spirit of the body; fellowship; brotherhood.
Esse quam videri, L., to be, rather than to seem.
Esto perpetua, L., let it be perpetual; let it endure forever.
Et cætera, L., and the rest; etc.
Et hoc genus omne, L., and everything of the kind.
Et sequentes, L., *Et sequentia*, L., and those that follow.
Et sic de cæteris, L., and so of the rest.
Et tu, Brute! L., and thou also, Brutus!
Eureka, Gr., I have found it. (The motto of California.)
Ex adverso, L., from the opposite side.
Ex animo, L., with the soul; heartily.
Ex capite, L., from the head; from memory.
Ex cathedra, L., from the bench, chair or pulpit; with high authority.
Excelsior, L., higher; more elevated. (The motto of New York.)
Exceptio probate regulam, L., the exception proves the rule.
Excerpta, L., extracts.
Ex concessio, L., from what is conceded.
Ex curia, L., out of court.
Ex dono, L., by the gift.
Exempli gratia, L., for example; for instance.
Exeunt, L., they go out.
Exeunt omnes, L., all go out.
Exit, L., departure; a passage out; death.
Exitus acta probat, L., the event justifies the deed. (Washington's motto.)
Ex necessitate rei, L., from the necessity of the case.
Ex nihilo nihil fit, L., out of nothing, nothing comes.
Ex officio, L., by virtue of office.
Ex parte, L., on one part or side only.
Ex pede Herculum, L., we see a Hercules from the foot; we judge the whole from the specimen.
Experimentum crucis, L., the experiment of the cross; a decisive experiment; a most searching test.
Experto crede, L., trust one who has had experience.
Ex post facto, L., after the deed is done.
Ex tempore, L., off-hand; without premeditation.
Extra muros, L., beyond the walls.
Ex uno disce omnes, L., from one learn all; from one you can judge the whole.
Ex usu, L., from or by use.

Facetiæ, L., witticisms; humorous pleasantry.
Facile princeps, L., evidently pre-eminent; the admitted chief.
Facilis est descensus Averni, L., the descent to hell is easy; the road to evil is easy.
Fac-simile, L., an exact copy; a likeness.
Fait accompli, F., a thing already accomplished.
Fas est et ab hoste doceri, L., it is well to learn even from an enemy.
Fata Morgana, It., a meteoric phenomenon nearly allied to the mirage.
Fata obstant, L., the Fates oppose it.
Fauteuil, F., an easy chair.
Faux pas, F., a false step; a mistake.
Fecit, L., he made it; put after an artist's name.
Felicitas multos habet amicos, L., prosperity has many friends.
Feliciter, L., happily; successfully.
Felo de se, L., a-self-murderer; one who commits felony by suicide.
Femme couverte, F., a woman covered or sheltered; a married woman.
Femme de chambre, F., a woman of the chamber; a chamber maid.
Femme sole, F., a single woman; an unmarried woman.
Ferœ naturæ, L., of a wild nature—said of wild beasts.
Festina lente, L., hasten slowly.
Fête Champtère F., a rural festival.
Fête Dieu, F., the Corpus Christi festival of the Roman Catholic Church.
Feu de joie, F., a bonfire; a discharge of fire-arms on joyful occasions.
Fiat justitia ruat cælum, L., let justice be done, though the heavens should fall.
Fidei defensor, L., defender of the faith.
Fides Punica, L., Punic faith; treachery.
Fidus Achates, L., faithful Achates, a true friend.
Fille de chambre, F., a girl of the chamber; a chamber-maid.
Finem respice, L., look to the end.
Fit fabricando faber, L., a workman is made by working; practice makes perfect.
Flagrante delicto, L., in the commission of crime.
Fortiter in re, L., with firmness in acting.
Fortuna favet fortibus, F., fortune favors the brave.
Fronti nulla fides, L., no faith in appearance; there is no trusting to appearances
Fuit Ilium, L., Troy has been.
Fulmen brutum, L., a harmless thunderbolt.
Functus officio, L., having discharged his office.
Furor loquendi, L., a rage for speaking.
Furor poeticus, poetic fire.
Furor scribendi, L., a rage for writing.

Garde du corps, F., a body-guard.
Garde mobile, F., a guard liable for general service.
Gardez bien, F., guard well; take care.
Genius loci, L., genius of the place.
Gens d'armes, F., armed police.
Gens de lettres, F., literary people.
Gens de même famille, F., birds of a feather
Gentilhomme, F., a gentleman.
Germanice, L., in German.
Gloria in excelsis, L., glory to God in the highest.
Gloria Patri, L., glory to the Father.
Gradus ad Parnassum, L., a step to Parnassus, a mountain sacred to Apollo and the Muses; a book containing aids in writing Greek or Latin poetry.
Grande Parure, F., full dress.
Gratis dictum, L., mere assertion.
Guerre a l'outrance, L., war to the uttermost.

Haud passibus æquis, L., not with equal steps.
Haut gout, F., fine or elegant taste; high flavor or relish.
Hic et ubique, L., here and everywhere.
Hic jacet, L., here lies.
Hic labor, hoc opus est, L., this is labor, this is work.
Hic sepultus, L., here buried.
Hinc illæ lacrimæ, L., hence proceed these tears.
Historiette, F., a little or short history; a tale.
Hoi polloi, Gr., the many; the rabble.
Hombre de un libro, Sp., a man of one book.
Homme d'esprit, L., a man of talent; a witty man.
Honi soit qui mal y pense, F., evil be to him who evil thinks.
Honorarium, L., a fee paid to a professional man.
Horribile dictu, L., terrible to be said.
Hors de combat, F., out of condition to fight.
Hortus siccus, L., collection of dried plants.
Hotel de ville, F., a town hall.
Hotel des Invalides, L., the military hospital in Paris.
Humanum est errare, L., to err is human.

Ich dien, Ger., I serve.
Id est, L., that is, abbreviated to *i.e.*
Imitatores servum pecus, L., imitators; a servile herd.
Imperium in imperio, L., a government within a government.
In æternum, L., forever.
In armis, L., under arms.
In articulo mortis, L., at the point of death.
Index expurgatorius, L., a list of prohibited books.
In esse, L., in being.
In extenso, L., at full length.
In extremis, L., at the point of death.
In flagrante delictu, L., taken in the act.
In forma pauperis, L., in the form of a poor person.
In foro conscientiæ, L., before the tribunal of conscience.
Infra dignitatem, L., below one's dignity.
In hoc signo vinces, L., under this sign, or standard, thou shalt conquer.
In hoc statu, L., in this state or condition.
In limine, L., at the threshold.
In loco, L., in the place.
In loco parentis, L., in the place of a parent
In medias res, in the midst of things.
In memoriam, L., to the memory of; in memory.
In nomine, L., in the name of.
In nubibus, L., in the clouds.
In pace, L., in peace.
In perpetuum, L., forever.
In petto, L., within the breast; in reserve.
In pleno, L., in full.
In posse, L., in possible existence; that may be possible.
In præsenti, L., at the present time.
In propria persona, L., in one's own person
In puris naturalibus, L., in naked nature; quite naked.
In re, L., in the matter of.
In rem, L., against the thing or property.
In rerum natura, L., in the nature of things.
In situ, L., in its original situation.
Insouciance, F., indifference; carelessness.
In statu quo, L., in the former state.
Inter alia, L., among other things.
Inter nos, L., between ourselves.
Inter pocula, L., between drinks.
In terrorem, L., as a warning.
Inter se, L., among themselves.
In totidem verbis, L., in so many words.
In toto, L., in the whole; entirely.
Intra muros, L., within the walls.
In transitu, L., on the passage; during the conveyance.
In vacuo, L., in empty space; free, or nearly free, from air.
In vino veritas, L., there is truth in wine.
Invita Minervæ, L., against the will of Minerva.
Ipse dixit, L., he himself said it; dogmatism.
Ipsissima verba, L., the very words.
Ipsissimis verbis, L., in the very words.
Ipso facto, L., in the fact itself.
Ira furor brevis est, L., anger is a short madness.

Jacta est alea, L., the die is cast.
Je ne sais quoi, F., I know not what.
Jet d'eau, F., a jet of water.
Jeu de mots, F., a play on words; a pun.
Jeu d'esprit, F., a play of spirit; a witticism.
Jubilate Deo, L., be joyful in the Lord.
Judicium Dei, L., the judgment of God.
Jupiter tonans, L., Jupiter the thunderer.
Jure divino, L., by divine law.
Jure humano, L., by human law.
Jus canonicum, L., canon law.
Jus civile, L., civil law.
Jus divinum, L., divine law.
Jus gentium, L., the law of nations.
Juste milieu, F., the golden mean.

Labore et honore, L., by labor and honor.
Labor ipse voluptas, L., labor itself is a pleasure.

Labor omnia vincit, L., labor conquers everything.
La fame non vuol leggi. It., hunger obeys no laws.
Laissez faire, F., let alone; suffer to have its own way.
Lapsus calami, L., a slip of the pen.
Lapsus linguæ, L., a slip of the tongue.
Lapsus memoriæ, L., a slip of the memory.
Lares et penates, L., domestic and household gods.
Latet anguis in herba, L., a snake lies hid in the grass.
Laudaria viro laudato, L., to be praised by a man who is himself praised.
L'avenir, F., the future.
Laus Deo, L., praise to God.
Le beau monde, F., the fashionable world.
Le bon temps viendra, F., the good time will come.
Le grand monarque, F., the great monarch—applied to Louis XIV. of France.
Le pas, F., precedence in place or rank.
Le roi le veut, F., the king wills it.
Lèse-majesté, L., high treason.
L'étoile du nord, F., the star of the north—the motto of Minnesota.
Le tout ensemble, F., all together.
Lettre de cachet, F., a sealed letter; a royal warrant.
Lettre de marque, F., a letter of marque or reprisal.
Lex non scripta, L., the unwritten law.
Lex scripta, L., the written law; the statute law.
Lex talionis, L., the law of retaliation.
Liberum arbitrium, L., free will.
Limæ labor, L., the labor of the file; the slow polishing of a literary composition.
Lis sub judice, L., a case not yet decided.
Lite pendente, L., the law-suit hanging; during the trial.
Litera scripta manet, L., the written letter remains.
Loci communes, L., common places.
Locos y ninos dicen la verdad, Sp., children and fools speak the truth.
Locum tenens, L., one holding the place; a deputy or substitute.
Locus standi, L., a place for standing; a right to interfere.
Locus penitentiæ, L., place for repentance.
Lusus naturæ, L., a sport or freak of nature.

Ma chère, F., my dear—fem.
Ma foi, F., upon my faith.
Magna est veritas et prevalebit, L., truth is great and it will prevail.
Magnum bonum, L., a great good.
Magnum opus, L., a great work.
Maintien, F., deportment; carriage.
Maison de santé, F., a private hospital.
Maitre d'hotel, F., a house-steward.
Maladie du Pays, F., home sickness.
Mala fide, L., with bad faith; treacherously
Mal à propos, F., ill-timed.
Male parta male dilabuntur, L., things ill gotten, are ill spent.
Malgré nous, F., in spite of us.
Manibus pedibusque, L., with hands and feet.
Malum in se, L., bad in itself.
Manu propria, L., with one's own hand.
Mardi Gras, F., Shrove Tuesday.
Mater familias, L., the mother of a family.
Mauvaise honte, F., false shame.
Mauvais sujet, F., a bad subject; a worthless fellow.
Maximus in minimis, L., very great in trifling things.
Medio tutissimus ibis, L., you will go most safely in a middle course.
Mega biblion, mega kakon, Gr., a great book is a great evil.
Me judice, L., I being judge; in my opinion
Memento mori, L., remember death.
Mens sana in corpore sano, L., a sound mind in a sound body.
Mens sibi conscia recti, L., a mind conscious of rectitude.
Mens agitat molem, L., mind moves matter
Menu, F., a bill of fare.
Mesalliance, F., improper association, marriage with one of lower station.
Meum et tuum, L., mine and thine.
Mirabile dictu, L., wonderful to be told.
Mirabile visu, L., wonderful to be seen.
Mise en scène, F., the getting up for the stage, or the putting in preparation for it
Modus operandi, L., the manner of operation.
Mollia tempora fandi, L., times favorable for speaking.
Mon ami, F., my friend.
Mon cher, F., my dear—masc.
Montani semper liberi, L., mountaineers are always freemen—the motto of West Virginia.
More majorum, L., after the manner of our ancestors.
More suo, L., in his own way.
Motu proprio, L., of his own accord.
Multum in parvo, L., much in little.
Mundus vult decipi, L., the world wishes to be deceived.
Mutatis mutandis, L., the necessary changes being made.

Natale solum, L., natal soil.
Necessitas non habet legem, L., necessity has no law.
Née, F., born, family or maiden name.
Ne exeat, L., let him not depart.
Ne fronti crede, L., trust not to appearance.
Nemine contradicente, L., without opposition.
Nemine dissentiente, L., no one dissenting; without opposition.
Nemo me impune lacessit, L., no one provokes me with impunity—the motto of Scotland.
Nemo mortalium omnibus horis sapit, L., no one is wise at all times.
Nemo repente fuit turpissimus, L., no man becomes a scoundrel at once.
Ne plus ultra, L., nothing further.
Nequid detrimenti respublica capiat, L., lest the republic should receive harm.
Ne sutor ultra crepidam, L., let the shoemaker stick to his last.
Nil admirari, L., to wonder at nothing.
Nil desperandum, L., never despair.

N'importe, F., never mind.
Nisi dominus frustra, unless the Lord helps nothing is gained.
Nisi prius, L., unless previously.
Nitor in adversum, L., I strive against opposition.
Noblesse oblige, F., nobility obliges; nobles must act nobly.
Nolens volens, L., willy-nilly.
Noli me tangere, L., don't touch me; hands off.
Nolle prosequi, L., to abandon prosecution.
Nolo episcopari, L., I am unwilling to be a Bishop.
Nom de guerre, F., a war name; an assumed name.
Nom de plume, F., a pen name; name assumed by an author.
Non compos mentis, L., not in one's right mind.
Non constat, L., it does not appear.
Non est inventus, L., he has not been found
Non multa, sed multum, L., not many things, but much.
Non nobis solum, L., not for ourselves alone.
Non mi ricordo, It., I do not remember.
Noscitur a sociis., L., he is known by his companions.
Nota bene, L., mark well.
Nous avons changé tout cela, F., we have changed all that.
Nous verrons, F., we shall see.
Nonquam non paratus, L., never unprepared.

Oderint dum metuant, L., let them hate, provided they fear.
Odi profanum, L., I hate the vulgar.
Odium theologicum, L., theological hatred.
Olla podrida, Sp., a mixture.
Omne ignotum pro magnifico, L.,everything unknown is thought magnificent.
Omnia vincit amor, L., love conquers all things.
On dit, F., they say; people say.
Onus probandi, L., the burden of proof.
Ora pro nobis, L., pray for us.
O tempora! O mores! L., oh, the times! oh, the manners!
Otium cum dignitate, L., ease with dignity.
Outré, F., extravagant; extreme.

Palmam qui meruit ferat, L., who merits bears the prize.
Par excellence, F., by way of eminence; in the highest degree.
Par hasard, F., by chance.
Pari passu, L., with equal step.
Parvenu, F., an upstart; a rich "snob."
Pater familias, L., the father of a family.
Pater patriæ, L., the father of his country.
Pax vobiscum, L., peace be with you.
Peccavi, L., I have sinned.
Pendente lite, L., while the suit is pending.
Per annum, L., by the year.
Per capita, L., by the head; on each person.
Per contra, L., on the other hand.
Per diem, L., by the day; every day.
Periculum in mora, L., danger in delay.
Per se, L., by itself.
Personnel, F., the staff; persons in any service.
Petitio principri, L., begging the question.
Petite, F., small; little—fem.
Pièce de résistance, F., a joint of meat.
Pinxit, L., he (or she) painted it.
Pis aller, F., a last expedient.
Plebs, L., common people.
Poeta nascitur, non fit, L., a poet is born not made.
Point d'appui, F., point of support.
Populus vult decipi, L., the populace wish to be deceived.
Posse commitatus, L., the power of the country; the force that may be summoned by the sheriff.
Poste restante, F., to be left till called for.
Post meridiem, L., afternoon.
Post mortem, L., after death.
Post obitum, L., after death.
Pour parler, F., a consultation.
Pour prendre conge, F., to take leave.
Précieuse, F., a blue stocking; a conceited woman.
Preux chevalier, F., a gallant gentleman.
Prima donna, It., the first lady; the principal female singer in Italian opera.
Prima facie, L., on the first face; at first sight.
Primus inter pares, L., first among his peers.
Pro bono publico, L., for the public good.
Proces verbal, F., verbal process; the taking of testimony in writing.
Pro et con, L., for and against.
Pro forma, L., for the sake of form.
Pro patria, L., for one's country.
Pro tempore, L., for the time.
Punica fides, L., Punic faith, *i.e.*, treachery

Quantum sufficit, L., as much as is sufficient.
Quelque chose, F., something.
Quid nunc, L., what now; a gossip.
Quid pro quo, L., an equivalent.
Qui vive, F., who goes there?
Quod erat demonstrandum, L., which was to be demonstrated.
Quondam, L., at one time; once.

Rara avis, L., a rare bird.
Rechauffé, F., warmed over; stale.
Recherché, F., choice; elegant.
Rédacteur, F., an editor.
Redivivus, L., restored to life.
Reductio ad absurdum, L., reduction to an absurdity.
Rentes, F., public funds; national securities
Requiescat in pace, L., may he (or she) rest in peace.
Res angusta domi, L., the narrow things at home; poverty.
Res gestæ, L., things done.
Resurgam, L., I shall rise again.
Revenons a nos moutons, F., let us return to our sheep; come back to the subject.
Robe de chambre, F., a dressing gown.
Roué, F., a rake.
Rouge et noir, F., red and black; a game.

Sanctum sanctorum, L., the holy of holies.
Sang froid, F., cold blood; self possession.

Sans culottes, F., without breeches; red republicans.
Sartor resartus, L., the tailor patched.
Sauve qui peut, F., save himself who can.
Savoir faire, F., knowing how to do things
Savoir vivre, F., knowledge of the world.
Semper idem, L., always the same.
Semper paratus, L., always prepared.
Sequitur, L., it follows.
Seriatim, L., in order.
Sic itur ad astra, L., thus the road to immortality.
Sic semper tyrannis, L., thus always with tyrants.
Sic transit gloria mundi, L., so passes the glory of the world.
Sic volo, sic jubeo, L., thus I will; thus I command.
Similia similibus curantur, L., like things are cured by like.
Similis simili gaudet, L., like is pleased with like.
Si monumentum quæris, circumspice, L., if you seek his monument, look around.
Sine die, L., without a day appointed.
Sine qua non, L., an indispensable condition.
Siste viator, L., stop, traveler.
Si vis pacem, para bellum, L., if you wish peace, prepare for war.
Soi-disant, F., self-styled.
Spero meliora, L., I hope for better things.
Spirituel, L., intellectual; witty.
Spolia opima, L., *in ancient Rome*, the spoils of a vanquished general taken by the victorious general; a rich booty.
Sponte sua, L., of one's own accord.
Statu quo ante bellum, L., in the state which was before the war.
Status quo, L., the state in which.
Stet, L., let it stand.
Suaviter in modo, fortiter in re, L., gentle in manners, brave in deed.
Sub judice, L., under consideration.
Sub pœna, L., under a penalty.
Sub rosa, L., privately.
Sub silentio, L., in silence or stillness.
Sui generis, L., of its own kind.
Summum bonum, L., the chief good.
Summum jus, summa injuria, L., the rigor of the law is the height of oppression.
Surgit amari aliquid, L., something bitter arises.
Suum cuique, L., let each have his own.

Tableau vivant, F., the representation of some scene by groups of persons.
Tabula rasa, L., a smooth or blank tablet.
Tædium vitæ, L., weariness of life.
Tant pis, F., so much the worse.
Te Deum, L., a hymn of thanksgiving.
Tempora mutantur, et nos mutanur in illis, L., the times are changed and we are changed with them.
Tempus fugit, L., time flies.
Terminus ad quem, L., the time to which.
Terminus a quo, L., the time from which.
Terra firma, L., solid earth.
Terra incognita, L., an unknown country.
Tertium quid, L., a third something.
Tête-a-tête, F., head to head; a private conversation.
Toga virilis, L., the gown of manhood.
Tokalon, Gr., the beautiful; the chief good
Totidem verbis, L., in just so many words.
Toties quoties, L., as many as.
Toto cælo, L., by the whole heavens; diametrically opposite.
Toujours prêt, F., always ready.
Tour de force, F., a feat of strength or skill.
Tout-a-fait, F., entirely; wholly.
Tout ensemble, F., the whole taken together
Troja fuit, L., Troy was.
Trottoir, F., a sidewalk.
Tu quoque, Brute! L., and thou, too, Brutus.
Tutor et ultor, L., protector and avenger.
Tuum est, L., it is your own.

Ubimel, ibi apes, L., where honey is, there are bees.
Ultima ratio regum, L., the last argument of kings; war.
Ultima Thule, L., the utmost boundary or limit.
Un bien fait n'est jamais perdu, F., a kindness is never lost.
Un fait accompli, L., an accomplished fact.
Unguibus et rostro, L., with claws and beak.
Usque ad nauseam, L., to disgust.
Usus loquendi, L., usage in speaking.
Utile dulci, L., the useful with the pleasant.
Ut infra, L., as below.
Uti possidetis, L., as you possess; state of present possession.
Ut supra, L., as above.

Vade mecum, L., go with me.
Vale, L., farewell.
Valet de chambre, F., an attendant; a footman.
Variæ lectiones, L., various readings.
Variorum notæ, L., the notes of various authors.
Veni, vidi, vici, L., I came, I saw, I conquered.
Vera pro gratiis, L., truth before favor.
Verbatim et literatim, L., word for word and letter for letter.
Verbum sat sapienti, L., a word is enough for a wise man.
Veritas prevalebit, L., the truth will prevail.
Veritas vincit, L., truth conquers.
Vestigia, L., tracks; vestiges.
Vestigia nulla retrorsum, L., no footsteps backward.
Vexata quæstio, L., a disputed question.
Vice, L., in the place of.
Vice versa, L., the terms being exchanged.
Videlicet, L., to wit; namely.
Vide ut supra, L., see what is stated above.
Vi et armis, L., by force and by arms; by main force.
Vincit qui se vincit, L., he conquers who overcomes himself.
Vinculum matrimonii, L., the bond of marriage.
Virtus laudatur, et alget, L., virtue is praised, and is not cherished (is starved.)
Virtus semper viridis, virtue is ever green and blooming.

Vis inertiæ, L., the power of inertia; resistance.
Vivat regina! L., long live the queen!
Vivat rex! L., long live the king.
Viva voce, L., by the living voice; by oral testimony.
Vivat respublica! L., long live the republic!
Vive la république! F., long live the republic!
Vive l'empereur! F., long live the emperor!
Vive le roi! F., long live the king!
Voilà, F., behold; there is or there are.
Volens et potens, L., able and willing; motto of Nevada.
Volente Deo, L., God willing.
Volenti non fit injuria, L., no injustice is done to the consenting persons.
Vox et præterea nihil, L., a voice and nothing more; sound without sense.
Vox populi, vox Dei, L., the voice of the people is the voice of God.
Vulgo, L., commonly.
Vultus est index animi L.,the face is the index of the mind.

A HANDFUL OF USEFUL ABBREVIATIONS.

Abbreviations are devices used in writing and printing to save time and space, consisting usually of curtailments effected in words and syllables by the removal of some letters, often of the whole of the letters except the first. The following is a list of the more important:

A.B., *artium baccalaureus*,bachelor of arts; able seaman.
Abp. archbishop.
A.C., *ante Christum*, before Christ.
Ac., acre.
Acc., Ac., or Acct., account.
A.D., *anno Domini*, in the year of our Lord; used also as equivalent to "after Christ," or "of the Christian era."
A.D.C., aide-de-camp.
Æt. or Ætat., *ætatis* (*anno*), in the year of his age.
A.H., *anno Hejiræ*, in the year of the Hegira.
A.M., *ante meridiem;* forenoon; *anno mundi*, in the year of the world; *artium magister*, master of arts.
Anon., anonymous.
A.R.A., associate of Royal Academy (London).
A.R.S.A., associate of the Royal Scottish Academy.
A.U.C., *ab urbe condita*, from the building of Rome (758 B.C.)
A.V., authorized version.
B.A., bachelor of arts.
Bart., or Bt., baronet.
B.C., before Christ.
B.C.L., bachelor of civil law.
B.D., bachelor of divinity.
B.L., bachelor of laws.
B.M., bachelor of medicine.
Bp., bishop.
B.S., bachelor of surgery.
B.Sc., bachelor of science.
B.V., Blessed Virgin.
C., cap., or chap., chapter.
C.A., chartered accountant.
Cantab., *Cantabrigiensis* of Cambridge.
Cantuar., *Cantuariensis* of Canterbury.
C.B., companion of the Bath.
C.D.V., carte de visite.
C.E., civil engineer.
Cf., *confer*, compare.
C.I., order of the Crown of India.
C.I.E., companion of the Indian Empire.
C.J., chief-justice.
C.M., *chirurgiæ magister*, master in surgery; common metre.
C.M.G., companion of the order of St. Michael and St. George.
Co., company or county.
C.O.D., cash on delivery.
Cr., creditor.
Crim., con., criminal conversation.
C.S., civil service, clerk to the signet.
C.S.I., companion of the Star of India.
Ct., Connecticut.
Curt., current, the present month.
Cwt., hundredweight.
d., *denarius*, penny or pence.
D.C., district of Columbia.
D.C.L., doctor of civil law.
D.D., doctor of divinity.
Del., *delineavit*, drew it.
D.F., defender of the faith.
D.G., *Dei gratia*, by the grace of God.
D.L., deputy lieutenants.
D.Lit., doctor of literature.
Do., *ditto*, the same.
D.O.M., *Deo Optimo Maximo*, to God, the best and greatest.
Dr., doctor, also debtor.
D.Sc., doctor of science.
D.V., *Deo volente*, God willing.
Dwt., pennyweight.
E., east.
Ebor., *Eboracensis*, of York.
E.C., established church.
E.E., errors excepted.
e.g., *exempli gratia*, for example.
E.I., East Indies.
Etc., or &c., *et cetera*, and the rest.
Exr., executor.
F., or Fahr., Fahrenheit's thermometer.
F.A.S., fellow of the Antiquarian Society.
F.C., Free Church.
F.D., *fidei defensor*, defender of the faith.
Fec., *fecit*, he made or did it.
F.G.S., fellow of the Geological Society.
F.H.S., fellow of the Horticultural Society.
Fl., flourished.
Fla., Florida.
F.L.S., fellow of the Linnæan Society.
F. M., field marshal.
F.O.B., free on board (goods delivered.)
F.R.A.S., fellow of the Royal Astronomical (or Asiatic) Society.
F.R.C.P., fellow of the Royal College of Physicians.
F.R.C.S., fellow of the Royal College of Surgeons.

F.R.G.S., fellow of the Royal Geographical Society.
F.R.S., fellow of the Royal Society.
F.R.S.E., fellow of the Royal Society of Edinburgh.
F.S.A., fellow of the Society of Arts or Antiquaries.
F.S.S., fellow of the Statistical Society.
Ft., foot or feet.
F.Z.S., fellow of the Zoological Society.
Ga., Georgia.
Gal., gallon.
G.C.B., grand cross of the Bath.
G.C.M.G., grand cross of St. Michael and St. George.
G.C.S.I., grand commander of the Star of India.
G.P.O., general postoffice.
H.B.M., his or her Britannic majesty.
H.E.I.C.S., honorable East India Company's service.
Hhd., hogshead.
H.I.H., his or her imperial highness.
H.M.S., his or her majesty's ship.
Hon., honorable.
H.R., house of representatives.
H.R., his (her) royal highness.
H.S.H., his (her) serene highness.
Ia., Iowa.
Ib., or Ibid., *ibidem*, in the same place.
Id., *idem*, the same.
i. e., *id est*,, that is.
+ I.H.S., *Jesus hominum salvator*, Jesus the Saviour of men; originally it was IHΣ, the first three letters of IHΣOYΣ (*Iesous*), *Jesus*.
Incog., *incognito*, unknown.
Inf., *infra*, below.
I.N.R.I., *Iesus Nazarenus Rex Iudæorum*, Jesus of Nazareth, King of the Jews.
Inst., instant, or of this month; institute.
I.O.U., I owe you.
i.q., *idem quod*, the same as.
J.P., justice of the peace.
Jr., junior.
J.U.D., *juris utriusque doctor*, doctor both of the civil and the canon law.
K.C.B., knight commander of the Bath.
K.C.M.G., knight commander of St. Michael and St. George.
K.C.S.I., knight commander of the Star of India.
K.G., knight of the Garter.
K.G.C.B., knight grand cross of the Bath.
K.P., knight of St. Patrick.
K.T., knight of the Thistle.
Kt., or Knt., knight.
Ky., Kentucky.
L., l., or £, pound sterling.
L.A., literate in arts.
Lat., latitude.
Lb., or ℔, *libra*, a pound (weight).
L.C.J., lord chief-justice.
Ldp., lordship.
L.D.S., licentiate in dental surgery.
Lit., D., doctor of literature.
L.L., Low Latin.
L.L.A., lady literate in arts.
LL.B., *legum baccalaureus*, bachelor of laws.
LL.D., *legum doctor*, doctor of laws (that is the civil and the canon laws).
LL.M., master of laws.
Lon., or Long., longitude.
L.R.C.P., licentiate Royal College of Physicians.
L.R.C.S., licentiate of the Royal College of Surgeons.
L.S.A., licentiate of the Society of Apothecaries.
L.S.D., *libræ, solidi, denarii*, pounds, shillings, pence.
M.A., master of arts.
Mass., Massachusetts.
M.B., *medicinæ baccalaureus*, bachelor of medicine.
M.C., member of congress; master in surgery.
M.D., *medicinæ doctor*, doctor of medicine.
Md., Maryland.
Me., Maine.
M.E., mining engineer; Methodist Episcopal.
Messrs., messieurs, gentlemen.
M.F.H., master of fox hounds.
M.I.C.E., member of the Institute of Civil Engineers.
Mlle., mademoiselle.
Mme., madame.
Mo., Missouri.
M.P., member of Parliament.
M.R.C.S., member of the Royal College of Surgeons.
M.R.C.V.S., member of the Royal College of Veterinary Surgeons.
M.R.I.A., member of the Royal Irish Academy.
MS., manuscript; MSS., manuscripts.
Mus. D., *musicæ doctor*, doctor of music.
N., north.
N.B., *nota bene*, take notice; also North Britain, New Brunswick.
N.C., North Carolina.
N.D., no date.
Nem. con., *nemine contradicente*, no one contradicting, unanimously.
N.H., New Hampshire.
N.J., New Jersey.
No., *numero*, number.
N.P., notary public.
N.S., new style, Nova Scotia.
N.S.W., New South Wales.
N.T., New Testament.
N.Y., New York.
N.Z., New Zealand.
O., Ohio.
Ob., *obiit*, died.
O.S., old style.
O.T., Old Testament.
Oxon., *Oxoniensis*, of Oxford.
Oz., ounce or ounces.
Pa., Pennsylvania.
P C., privy-councillor.
P.E., Protestant Episcopal.
Per cent, *per centum* by the hundred.
Ph.D., *philosophiæ doctor*, doctor of philosophy.
Pinx., *pinxit*, painted it.
P.M., *post meridiem*, afternoon.
P.O., post-office.
P.O.O., post-office order.
P.P., parish priest.
Pp., pages.
P.P.C., *pour prendre congé*, to take leave.

Prox., *proximo (mense)*, next month.
P.S., postcript.
Q., question; queen.
Q.C., queen's council.
Q.E.D., *quod erat demonstrandum*, which was to be demonstrated.
Q.E.F., *quod erat faciendum*, which was to be done.
Qu., query.
Quant. suff., *quantum sufficit*, as much as is needful.
Q.V., *quod vide*, which see.
R., *rex regina*, king, queen.
R.A., royal academician; royal artillery.
R.A.M., Royal Academy of Music.
R.C., Roman Catholic.
R.E., royal engineers.
Rev., reverend.
R.H.A., Royal Hibernian Academician.
R.I., Rhode Island.
R.I.P., *requiescat in pace*, may he rest in peace.
R.M., royal marine.
R.N., royal navy.
R.S.A., royal Scottish academician.
R.S.V.P., *répondez, s'il vous plait*, reply, if you please.
Rt., Hon., right honorable.
Rt., Wpful., right worshipful.
R.V., revised version.
S., south.
S. or St., saint.
S.C., South Carolina.
Sc., *scilicet*, namely, viz.
S.J., Society of Jesus (Jesuits).
S.P.C.K., Society for promoting Christian Knowledge.
S.P.Q.R., *senatus populusque Romanus*, the senate and people of Rome.
S.S.C., solicitor before the supreme courts.
St., saint, street.
S.T.D., *sacræ theologiæ doctor*, doctor of divinity.
S.T.P., *sacræ theologiæ professor*, professor of divinity.
T.C.D., Trinity College, Dublin.
Ult., *ultimo*, last.
U.P., United Presbyterian.
U.S., United States.
U.S.A., United States of America.
U.S.N., United States navy.
V., *vide*, see; also *versus*, against.
Va., Virginia.
V.C., Victoria Cross.
Viz., *videlicet*, to wit or namely.
V.P., vice-president.
V.S., veterinary surgeon.
Vt., Vermont.
W., west.
W.I., West Indies.
W.S., writer to the signet.
Xmas, Christmas.
In LL.D., LL.B., &c., the letter is doubled, according to the Roman system, to show that the abbreviation represents a plural noun.

STRAY HINTS FOR WRITERS.

That writer does the most who gives his reader the most knowledge and takes from him the least time. Sidney Smith once remarked, "After you have written an article, take your pen and strike out half of the words, and you will be surprised to see how much stronger it is." In literature, our taste will be discovered by that which we give and our judgment by that which we withhold.

There is nothing so fascinating as simplicity and earnestness. A writer who has an object and goes right on to accomplish it will compel the attention of his readers. Montaigne, the celebrated French essayist, whose clear style, as well as vigor of thought, has been the praise of good critics the world over, made his boast that he never used a word that could not be readily understood by anybody in the Paris markets. Plain words are ever the best.

A man cannot put his thoughts, if he have any, into language too plain. Good writing, like good speaking, consists in simplicity and force of diction, and not in inflated, curiously balanced or elaborately constructed sentences. The best writing is but a degree above the best conversation, and that only because the writer has a little more time to select his words than the speaker has.

Do not assume that, because you have something important to communicate, it is necessary to write a long article. A tremendous thought may be packed into a small compass—made as solid as a cannon ball, and, like the projectile, cut down all before it. Short articles are generally more effective, find more readers and are more widely copied than long ones. *Pack your thoughts close together*, and though your article may be brief it will be more likely to make an impression.

Remember all the time that facility in composition as in all other accomplishments, can only be obtained by practice and perseverance—

True grace in writing comes by art, not chance;
As they move easiest who have learned to dance.

It should never be forgotten that the sole use of words and sentences is to convey thought and impression. Hence words and sentences should not be seen. The highest art in the use of language is to conceal itself. The old maxim is in place: "*Ars est celare artem*"—"Art is in concealing art." The perfection of a window pane is in concealing itself, so that as you look through it upon the objects beyond you do not see it, are not conscious that it is there.

Many a man's destiny has been made or marred for time and for eternity by the influence which a single sentiment has made on his mind, by its forming his character for life, making it terribly true that moments sometimes fix the coloring of our whole subsequent existence. Hence those who write for the public should do so under a deep sense of responsibility, and endeavor to do it in that healthful and equable state of mind and body which favors a clear, unexaggerated and logical expression of ideas.

Mr. Webster once replied to a gentleman who pressed him to speak on a subject of great importance: "The subject interests me deeply, but I have not time. There, sir," pointing to a huge pile of letters on the table, "is a pile of unanswered letters to which I must reply before the close of this session (which was then three days off), I have no time to master the subject so as to do it justice." "But, Mr. Webster, a few words from you would do much to awaken public attention to it." "If there is so much weight in my words as you represent, it is because I do not allow myself to speak on any subject until my mind is imbued with it."

The writer who uses weak arguments and strong epithets makes quite as great a mistake as the landlady who furnished her guests with weak tea and strong butter. More people commit suicide with the pen than with the pistol, the dagger and the rope. A pin has as much head as a good many authors, and a great deal more point. Good aims do not always make good books.

Alexander Hamilton once said to an intimate friend: "Men give me some credit for genius. All the genius I have lies just in this: When I have a subject in hand, I study it profoundly. Day and night it is before me. I explore it in all its bearings. My mind becomes pervaded with it. Then the effort which I make the people are pleased to call the fruit of genius. It is the fruit of labor and thought."

Obscurity in writing is commonly an argument of darkness in the mind. The greatest learning is to be seen in the greatest plainness. Obscure writers, like turbid streams, seem deeper than they are. Unintelligible language is a lantern without a light. Some authors write nonsense in a clear style, and others sense in an obscure one; some can reason without being able to persuade, others can persuade without being able to reason.

As 'tis a greater mystery in the art
Of painting to foreshorten any part
Than draw it out; so 'tis in books the chief
Of all perfections to be plain and brief.

POETRY AND GENERAL LITERATURE.

The past but lives in words: a thousand ages
Were blank, if books had not evoked their ghosts,
And kept the pale, unbodied shades to warn us
From fleshless lips.

—BULWER

BOOKS, AUTHORS AND TITLES.

The term Bible means *The* Book.

Homer is called the "Father of poetry."

Thackeray's first success was "Vanity Fair."

Even Milton stumbled into "mixed metaphor."

Boswell has been termed the "prince of biographers."

Poems giving instruction on certain subjects are called didactic.

The last six books of Spenser's "Faerie Queene" were lost at sea.

Roman authors all dedicated their works to some friend or patron.

The Early English Text Society made its first publication in 1864.

The authors of the seventeenth century wrote slavish "dedications."

The oldest book extant, Egyptian papyrus, is assigned to 2000 B. C.

"Read much, but not many works," is the advice of Sir W. Hamilton.

A man may play the fool in everything else but poetry, says Montaigne.

Mr. W. E. Ellsworth, of Chicago, paid $14,800 for a Gutenberg Bible in 1890.

Only two odes and a few fragments survive of all the great lyrics of Sappho.

When burned in 640, A.D., the Alexandrian library had 700,000 volumes.

A few scattered verses are all that remain of Ennius, the "father of Roman poetry."

Books in their present form were invented by Attalus, king of Pergamus, in 887 B.C.

A rare edition of Bocaccio was bought by the Duke of Marlborough, in 1812, for $11,500.

The German government has paid $50,000 for a missal that belonged to Henry VIII. of England.

Sandys' "Ovid," published 1626, was the first contribution of this country to English literature.

Pastoral is the term applied to the poetry and literature that professes to depict shepherd life.

Novelists make funny blunders. Amelia B. Edwards speaks of a "Massachusetts cotton plantation."

John Ruskin, who never published a volume of poetry, so-called, is the latest poet-laureate of England.

The art of poetry is to touch the passions, says Volta, and its duty is to lead them on the side of virtue.

The term biblioklept is a euphemism which softens the ugly word book-thief, by shrouding it in Greek.

Shelley said that "poetry is the record of the best and happiest moments of the happiest and best minds."

With the foundation of Harvard, 1636, may be hailed the dawn of literature in what is now the United States.

A Turkish name for the nightingale is bul-bul, and it has been introduced into English poetry by Byron and Moore.

The most successful instance of a long-continued literary partnership, was that of the French novelists, Erckmann and Chatrian.

America has given to the English language its most scientific grammarian, Lindley Murray, and its greatest lexicographer, Noah Webster.

Wordsworth defined poetry as "the breath and finer spirit of all knowledge, the impassioned expression which is the countenance of all science."

It is generally conceded that our greatest literary production, up to date, is that entitled, "Declaration of Independence," 1776, by Thomas Jefferson and "others."

The term Barmecides Feast is applied to an imaginary feast which takes its name from the story of the barber's sixth brother in the "Arabian Night's Entertainment."

It is manifest, says Sir Philip Sidney, that all government of action is to be gotten by knowledge, and knowledge best, by gathering many knowledges, which is reading.

Alastor is the name of the mythical house-demon, the "skeleton in the closet," which haunts and torments a family. Shelley has a poem entitled *Alastor, or the Spirit of Solitude.*

Chap books were small stitched tracts written in popular style and sold by the chapmen. The chap books of the seventeenth century are valuable illustrations of the manners of that time.

The first English newspaper was the *English Mercury*, begun in the reign of Queen Elizabeth, and was issued in the shape of a pamphlet. The *Gazette* of Venice was the original model of the modern newspaper.

Columbine is the female mask of the Italian improvised plays, variously figuring as the attendant of Pantaloon's daughter, or, occasionally, as the daughter herself. In English pantomime plays she is the betrothed of Harlequin.

Cinqué Cento is an Italian contraction for "one thousand five hundred" and a current term for the style in art and literature, which arose in Italy about or after the year 1500. It thus represents the revival of classical taste.

The so-called Aldine Editions were works from the press of Aldus Manutius, at Venice, celebrated for their binding and beautiful types. Many first editions of the Greek and Latin, as well as Italian classics, were printed by Aldus.

Dénouement, a French term naturalized in this country, is applied generally to the termination or catastrophe of a play or romance; but, more strictly speaking, to the train of circumstances solving the plot and hastening the catastrophe.

The newspapers of India are published in many languages, and it is said that those in the native tongues are more widely circulated and read, in proportion to the number of copies printed, than is the case anywhere else in the world.

The oldest newspaper in the world is said to be the British *Press*, which was first issued in 1662 and has just celebrated its 231st birthday. Three years later the London *Gazette* appeared, being published at Oxford on account of the plague in London.

The troubadours were the minstrels of Southern France in the eleventh, twelfth and thirteenth centuries. They were the first to discard Latin and use the native tongue in their compositions. Their poetry was either about love and gallantry or war and chivalry.

The Capulets and Montagues were two noble families of Verona, whose feuds have been rendered familiar by Shakspeare's tragedy of "Romeo and Juliet." Dante in his "Purgatorio" (VI.) alludes to the same. The story of Romeo and Juliet forms one of Bandello's famous tales.

Saga (Icel. "a tale") is the term applied to a heroic tale among the Scandinavian nations, especially the Icelanders. The old literature of Iceland is rich in Sagas, supposed to have been committed to writing about the twelfth century. Some of the Sagas have been translated into English.

The Trouvères were the minstrels of the north of France in the twelfth, thirteenth and fourteenth centuries. The language they employed was the "Walloon" or "Langue d'oil." The themes they sang were satires and romances, tales of knavery and adventure, legends and historical traditions.

There are 753 periodicals and newspapers in Russia, which contains a population of one hundred millions. According to the statistics of 1892 there were 19,573 in this country, and a population of say sixty-five millions. The newspapers in Russia, however, are misnamed. They dare not print the news.

The artistic representation in continuous narrative of the life and character of a particular individual is called a Biography. It may be either a mere *curriculum vitæ*, detailing only the historical sequence of the incidents of a man's life, or it may be an elaborate attempt at an analysis of his character and a complete reconstruction of the whole motives of his actions.

Biblical students take much interest in "Bel and the Dragon," an apocryphal book of the Old Testament in which the writer aims to warn some of his brethren against the sin of idolatry. Appearing first in the Septuagint, there is no evidence that it was ever accepted by the Jews as inspired. Jerome considered it a fable, but the Council of Trent declared the book canonical in 1546.

The Ancient Mariner is the hero of a poem by Coleridge. For the crime of having shot an albatross (a bird of good omen to seamen), terrible sufferings are visited upon him, which are finally remitted through his repentance; but he is doomed to wander over the earth, and to repeat his story to others as a warning lesson.

Aladdin is the name of the hero of one of the tales of the "Arabian Nights." He is presented with a "wonderful lamp," the genius of which appears whenever desired, and performs miraculous services. By means of this lamp Aladdin explores a vast cave, obtains enormous wealth, and marries the daughter of the Sultan.

Tennyson's beautiful poem, "Enoch Arden," has an interesting plot. The hero is a seaman wrecked on a desert island, who returns home after the absence of several years, and finds his wife married to another. Seeing her both happy and prosperous, Enoch resolves not to mar her domestic peace, so he leaves her undisturbed, and dies of a broken heart.

A club was organized at Venice in 1400, by some ladies and gentlemen who wore blue stockings, and thus came to be known as the Blue Stocking club. It appeared in France in 1590 as the *bas bleu*, and in 1780 was transported to England. The name "blue stocking" is still given to women who are vain and pedantic at the expense of womanly duty and grace.

Grub Street is thus described in Dr. Johnson's "Dictionary": "Originally the name of a street near Moorfields in London, much inhabited by writers of small histories, dictionaries and temporary poems, whence any mean production is called *Grub-street.*" Andrew Marvell used the name in its opprobrious sense, which later was freely used by Pope, Swift and the rest.

Any two lines which rhyme together may be called a couplet; but the term is more frequently used to denote two lines which contain the complete expression of an idea. Pope, as has been said, reasons in couplets. For example:

'Tis with our judgments as our watches, none
Go just alike, yet each believes his own.

A Madrigal is a short lyric poem, generally on the subject of love, and characterized by some epigrammatic terseness or quaintness. It was written, as a rule, in iambic meter, contained not less than six or more than thirteen lines, and ran chiefly upon three rhymes. The name is also applied to the music for a simple song sung in a rich, artistic style, but without musical accompaniment.

The term Black Letter (Black Letter) came into use about 1600, and is now applied to the types that are most generally known as Gothic. The first printed books imitated every peculiarity of the contemporary manuscripts; and as printing was first practised in Germany and the Netherlands, the first types were copies of the letters in use in those countries in the middle of the fifteenth century.

The art of foretelling the future by opening the Bible at random, and placing the finger on a chance passage, which is supposed to apply to the person pointing to it, is called Bibliomancy. In the fifth century its use was prohibited by the Council of Vannes, and again in the sixth century by the Councils of Agde and Orleans. It is said to have been introduced into England after the Norman Conquest. It is referred to by Tennyson in Enoch Arden.

The Minnesingers were love-poets, contemporary in Germany with the House of Hohenstauffen. Though called love-singers some of their poems were national ballads, and some were extended romances. Walter of Vogelweide was by far the best of the lyrists; Heinrich of Veldig was the most naive and ingenuous; Hartman the most classical; Wolfram the most sublime, and Gottfried the most licentious.

The original "Maid of Athens," rendered famous by Byron's song, "Maid of Athens, fare thee well!" was Theresa Macri. Twenty-four years after this song was written, an Englishman sought out "the Athenian maid," and found a beggar without a single vestige of beauty. She was married and had a large family; but the struggle of her life was to find bread to keep herself and family from positive starvation.

The expressive title of Lyric has been given to a certain species of poetry because originally accompanied by the music of the lyre. It is rapid in movement, as befitting the expression of the mind in its emotional and impassioned moments, and naturally its principal themes are love, devotion, patriotism, friendship, and the Bacchanalian spirit. It was a favorite form among the ancient Greeks and Romans.

The Iliad is the tale of the siege of Troy, an epic poem in twenty-four books, by Homer. Menelaos, king of Sparta, received as a guest Paris, a son of Priam, king of Troy. Paris eloped with Helen, his host's wife, and Menelaos induced the Greeks to lay siege to Troy, to avenge the perfidy. The siege lasted ten years, when Troy was taken and burnt to the ground. Homer's poem is confined to the last year of the siege.

Verse without rhyme is called "blank" verse. The term is especially applied to the heroic verse used in English dramatic and epic poetry, unrhymed iambic pentameter. Milton's Paradise Lost is a most notable example. The name is applied more widely to unrhymed lines, irrespective of their length, from such examples as the "Hiawatha" of Longfellow, which contains eight syllables in its lines, to his "Evangeline," which has as many as sixteen or even more.

Cinderella is the heroine of a fairy tale. She was the drudge of the house, "put upon" by her two elder sisters. While the elder sisters were at a ball, a fairy came, and having arrayed the "little cinder-girl" in ball costume, sent her in a magnificent coach to the palace where the ball was given. The prince fell in love with her, but knew not who she was. This, however, he discovered by means of a "glass slipper" which she dropped, and which fitted no foot but her own.

Famed in song and story is the Lorelei, or Lurlei, a rock which rises perpendicularly from the Rhine, to the height of four hundred and twenty-seven feet, near St. Goar. It used to be dangerous to boatmen, and has a celebrated echo. But the name is best known from Heine's song of the siren who sits on the rock combing her long tresses, and singing so ravishingly that the boatmen, enchanted by the music of her voice, forget their duty, and are drawn upon the rock and perish.

Ali Baba was a poor Persian wood-carrier, who accidentally learned the magic words, "Open Sesame!" "Shut Sesame!" by which he gained entrance into a vast cavern, the repository of stolen wealth and the lair of forty thieves. He made himself rich by plundering from these stores; and by the shrewd cunning of Morgiana, his female slave, the captain and his whole band of thieves were extirpated. In reward of these services Ali Baba gave Morgiana her freedom, and married her to his own son.

The venerable story of "Beauty and the Beast," from *Les Contes Marines* of Mde. Villeneuve (1740), is perhaps the most beautiful of all nursery tales. A young and lovely woman saved her father by putting herself in the power of a frightful but kind-hearted monster, whose respectful affection and melancholy overcame her aversion to his ugliness, and she consented to become his bride. Being thus freed from enchantment, the monster assumed his proper form and became a young and handsome prince.

Gil Blas was the son of Blas of Santillanê, 'squire or "escudero" to a lady, and brought up by his uncle, Canon Gil Perês. Gil Blas went to Dr. Godinez's school, of Oviedo, and obtained the reputation of being a great scholar. He had fair abilities, a kind heart and good inclinations, but was easily led astray by his vanity. He was full of wit and humor, but lax in his morals. Duped by others at first, he afterwards played the same devices on those less experienced. As he grew in years, however, his conduct improved, and when his fortune was made he became an honest, steady man.

A daily record of events or observations made by an individual is known as a diary. In it the man of letters inscribes the daily results of his reading or his meditations. Pepy's diary is a notable example. In it we find a mirror of the life of the seventeenth century in England. To the mercantile man it serves the purpose of an order or memorandum book; while the physician finds it indispensable as a register of engagements. Diaries in many forms and sizes are issued every year, containing also so much miscellaneous information that in one book we have at once a diary and an almanac.

The "Sturm und Drang Period" of German literature extended from 1750 to 1800, and was the volcanic era, when French and Latin were banished from the language, and German was left unadulterated. The Sturm und Drang period of life is between twenty and twenty-five, all enthusiasm and cram full of radical reform. All abuses are to be swept away, and a Utopian millennium is to be introduced. So in this literary period the language was to be purified, and German literature was to be made the model literature of the world. Old things were to be done away, and all things to become new.

The famous letters of Junius were a series of political letters signed "Junius," dissecting the conduct and characters of British public men—the Duke of Grafton, the Duke of Bedford, Lord Mansfield, and others, not excepting the King himself. These letters caused the utmost consternation amongst the ministry, and were immensely popular for their caustic satire, just censure, clear reasoning, their great knowledge of the secret government movements, and the brilliancy of their style. It is not known who was the author of these letters, but perhaps the most weighty evidence points to Sir Philip Francis.

Among the weird creations of German folk-lore is Frankenstein, a student, who constructed, out of the fragments of bodies picked from churchyards and dissecting-rooms, a human form without a soul. The monster had muscular strength, animal passions and active life, but "no breath of divinity." It longed for animal love and animal sympathy, but was shunned by all. It was most powerful for evil, and being fully conscious of its own defects and deformities, sought with persistency to inflict retribution on the young student who had called it into being. The idea is powerfully embodied in Mrs. Shelley's "Frankenstein."

"Nowhere" is the name given by Sir Thomas More to the imaginary island which he makes the scene of his famous political romance "Utopia." More represents this island as having been discovered by Raphael Hythloday, a companion of Amerigo Vespucci, but it of course is England, its capital, Amaurote, London. Its laws and institutions are represented as described in one afternoon's talk at Antwerp, occupying the whole of the second book, to which, indeed, the first serves but as a framework. More's romance has supplied (though incorrectly enough) the epithet *Utopian* to all impracticable schemes for the improvement of society.

The Fiery Cross was a blazing torch in the form of a cross, carried from hill to hill to summon the clans to battle. Sir Walter Scott speaks of it in "The Lady of the Lake." He says the chaplain slew a goat, and dipped the cross in its blood. It was then delivered to a swift runner, who ran with all his speed to the next hamlet, where he presented it to the principal person, who was bound to send it on. Every man, from sixteen to sixty years of age, was expected instantly to repair fully equipped for war to the place of rendezvous on pain of "fire and sword." In the English civil war of 1745–46 the Fiery Cross was sent round thus.

A passion for the collection of rare or curious books, originating in Holland, but attaining its highest point in France and England, has been well called Bibliomania. In its nobler aspect Andrew Lang has defined bibliomania as the "love of books for their own sake, for their paper, print, binding, and for their associations, as distinct from the love of literature." Most extravagant prices have been paid by collectors. Bernard Quaritch has the credit of having paid the largest sum recorded for a single volume, $24,750 for *Psalmorum Codex* (folio 1459). The first dated *Decameron* brought $11,300, and the Mazarin Bible, the first printed Bible, brought $19,500.

The Æneid, Virgil's epic poem, is contained in twelve books. When Troy was taken by the Greeks and set on fire, Æneas, with his father, son and wife, took flight, with the intention of going to Italy, the original birthplace of the family. The wife was lost, and the old man died on the way; but after numerous perils by sea and land, Æneas and his son Ascanius reached Italy. Here Latinus, the reigning king, received the exiles hospitably, and promised his daughter Lavinia in marriage to Æneas; but she had been already betrothed by her mother to prince Turnus, son of Daunus, king of Rutuli, and Turnus would not forego his claim. Latinus, in this dilemma, said the rivals must settle the dispute by an appeal to arms. Turnus being slain, Æneas married Lavinia, and ere long succeeded his father-in-law on the throne.

Petrarch appears to have been the first of modern poets crowned with laurel, 1341. Warton shows there were royal poets about the English kings before the time of Richard I., whose court poet, Blondel, is said to have discovered the place of the king's captivity and to have been the means of his release. Chaucer as royal poet was allowed a gallon of wine a day, and before that time a harper to Henry III. had an allowance of wine. Charles I. in 1630 made the office patent and settled both a stipend and wine on the "laureate." Till Tennyson was made poet the stipend was $635 plus $135 for the purchase of a cask of canary. The term arose thus: the king chose a laureated student of Oxford or Cambridge, that is, a student to whom a laurel crown had been presented for the best Latin ode in praise of Alma Mater. In France crowning with laurels is continued still.

John Alden was one of the early Pilgrim settlers in love with Priscilla, the beautiful Puritan. Miles Standish, a bluff old soldier, wishing to marry Priscilla, asked John Alden to go and plead for him; but the maiden answered archly, "Why don't you speak for yourself, John." Soon after this, Standish being reported killed by a poisoned arrow, John spoke for himself, and the maiden consented. Standish, however, was not killed, but only wounded; he made his re-appearance at the wedding, where, seeing how matters stood, he accepted the situation with the good natured remark:

> If you would be served you must serve yourself; and moreover
> No man can gather cherries in Kent at the season of Christmas.
> Longfellow, *Courtship of Miles Standish*, ix.

The Harleian MSS. were a collection of MSS. formed by Robert Harley, Earl of Oxford (1661-1725), and purchased by government in 1754 of the Duchess of Portland (his granddaughter) for $50,000. There are 14,236 original rolls, charters and other deeds, besides 7,639 volumes. The collection is very miscellaneous, but its main character is historical. It is rich in heraldic and genealogical MSS., in county visitations, parliamentary and legal proceedings, original records and calendars, abbey registers, missals, antiphonaries, and other Catholic service-books, ancient English poetry, and works on arts and sciences. It is kept in the British Museum library. It also contains the oldest known MS. of Homer's "Odyssey," two very early copies of the Latin Gospels in gold letters, 300 MS. Bibles or Biblical books, 200 volumes of the Fathers, etc.

"Gesta Romanorum" ("the deeds of the Romans"), is the title of a collection of short stories and legends, in the Latin tongue, widely spread during the middle ages, but of the authorship of which little is known save that it took its present form most likely in England about the end of the thirteenth or the beginning of the fourteenth century. The stories are invariably moralized, and indeed the edifying purpose throughout is the sole unifying element of the collection. The title is only so far descriptive as the nucleus of the collection consists of stories from Roman history, or rather pieces from Roman writers, not necessarily of any greater historical value than that of Androcles and the lion from Aulus Gellius. Moralized, mystical and religious tales, as well as other pieces, many of ultimate oriental origin, were afterwards added, and upon them edifying conclusions hung but awkwardly, bringing the whole up to about one hundred and eighty chapters.

Excalibur was the name of the famous mystic sword of King Arthur. There seem to have been two swords so called. One was the sword sheathed in stone, which no one could draw thence, save he who was to be king of the land. Above two hundred knights tried to release it, but failed; Arthur alone could draw it with ease, and thus proved his right of succession. This sword is called Excalibur, and is said to have been so bright "that it gave light like thirty torches." After his fight with Pellinore the king told Merlin he had no sword, and Merlin took him to a lake, and Arthur saw an arm "clothed in white samite, that held a fair sword in the hand." Presently the Lady of the Lake appeared, and Arthur begged that he might have the sword, and the lady told him to go and fetch it. When he came back to it he took it, "and the arm and hand went under the water again." This is the sword generally called Excalibur. When about to die, King Arthur sent an attendant to cast the sword back again into the lake, and again the hand "clothed in white samite" appeared, caught it, and disappeared.

Lady Godiva is the famous patroness of Coventry, England, who built herself an everlasting name by an unexampled deed of magnanimity and devotion. About the year 1040 Leofric, Earl of Mercia and Lord of Coventry, imposed certain exactions upon the inhabitants hard and grievous to be borne. His wife, the lady Godiva, besought her husband to give them relief, and pleaded so earnestly that, to escape from her importunities, he would grant her the favor, but only on the impossible condition that she would ride naked through the town. Godiva ordered proclamation to be made that on a certain day no one should be in the streets, or even look from their houses, when, "clothed on with chastity," she rode through the town; and her husband, in admiration of her intrepid devotion, performed his promise. Tennyson's poem, "Godiva," is well known.

Byron's tale called "The Giaour" is supposed to be told by a Turkish fisherman who had been employed all the day in the gulf of Ægina, and landed his boat at night-fall on the Piræus, now called the harbor of Port Leone. He was eye-witness of all the incidents, and in one of them a principal agent (see line 352: "I hear the sound of coming feet.....".) The tale is this: Leilah, the beautiful concubine of the caliph Hassan, falls in love with a giaour, flees from the seraglio, is overtaken by an emir, put to death, and cast into the sea. The giaour cleaves Hassan's skull, flees for his life, and becomes a monk. Six years afterwards he tells his history to his father confessor on his death-bed, and prays him to "lay his body with the humblest dead, and not even to inscribe his name on his tomb." Accordingly, he is called "the Giaour," and is known by no other name (1813).

El Dorado ("the Golden or Gilded Land"), originally existed but vaguely in the imaginations of the Spanish conquerors of America, whose insatiable avarice, feeding greedily on the marvellous accounts readily supplied by the natives—who were only anxious to get rid of their robber-guests—loved to dream of richer rewards than those of Mexico and Peru. But after Orellana's voyage down the Amazon, in 1540, the report was greatly embellished, and the locality of the fabulous region placed near the head springs of the Orinoco. Many a soldier of fortune perished in the search, many a brave troop of adventurers brought but a fraction of their number back, before the vast Lake of Parime, with Manoa, the city of gold, on its northern shore, was reluctantly relegated to the atlas of the poets. The most famous expeditions were those of Philip von Hutten (1541-46) and Sir Walter Raleigh; the last was that of Antonio Santos, in 1780.

Every land and age has heard of Bluebeard, the hero of the well-known nursery tale, so named from the color of his beard. The story is widely known in Western Europe, but the form in which it has become familiar is not an independent version, but a free translation of that given by Perrault in his famous "Contes" (1697). In this story Bluebeard is a seigneur of great wealth, who marries the daughter of a neighbor in the country, and a month after the wedding goes from home on a journey leaving his wife the keys of his castle, but forbidding her to enter one room. She cannot resist her curiosity, opens the door to find the bodies of all Bluebeard's former wives, and at once sees the fate to which she herself is doomed. Bluebeard, on his return, discovers, from a spot of blood upon the key, which could not be cleaned off, that his wife had broken his command, and tells her that she must die. She begs for a short

respite to commend herself to God, sends her sister Anne to the top of the tower to look round if any help is near, and finally is just on the point of having her head cut off, when her two brothers burst in and despatch Bluebeard. There are many versions of the story, all agreeing in essential details. It is found in the German, French, Greek, Tuscan, Icelandic, Esthonian, Gaelic and Basque folk-lore.

Few but have read somewhat of the Flying Dutchman, a phantom ship, seen in stormy weather off the Cape of Good Hope, and thought to forebode ill-luck. The legend is that it was a vessel laden with precious metal, but a horrible murder having been committed on board, the plague broke out among the crew, and no port would allow the ship to enter, so that it was doomed to float about like a ghost, and never to enjoy rest. Another legend is that a Dutch captain, homeward bound, met with long-continued headwinds off the Cape, but swore he would double the cape and not put back, if he strove till the day of doom. He was taken at his word, and there he still beats, but never succeeds in rounding the point. Captain Marryat has a novel founded on this legend, called "The Phantom Ship," 1836.

The "Wandering Jew" was last seen in the seventeenth century. On January 1, 1644, he appeared at Paris, and created a great sensation among all ranks. He claimed to have lived sixteen hundred years, and to have traveled through all regions of the world. He was visited by many prominent personages, and no one could accost him in a language of which he was ignorant. He replied readily and without embarrassment to any questions propounded, and he was never confounded by any amount of cross-questioning. He seemed familiar with the history of persons and events from the time of Christ, and claimed an acquaintance with all the celebrated characters of sixteen centuries. Of himself he said that he was usher of the court of judgment in Jerusalem, where all criminal cases were tried at the time of our Savior; that his name was Michab Ader; and that for thrusting Jesus out of the hall with these words, "Go, why tarriest thou?" the Messiah answered him, "I go, but tarry thou till I come," thereby condemning him to live till the day of judgment. The learned looked upon him as an impostor or madman, yet took their departure bewildered and astonished.

The famous John Gilpin was a linen-draper, living in London. His wife said to him, "Though we have been married twenty years, we have taken no holiday;" and at her advice the well-to-do linen-draper agreed to make a family party, and dine at the Bell, at Edmonton. Mrs. Gilpin, her sister, and four children went in the chaise, and Gilpin promised to follow on horseback, having borrowed a horse from his friend, a calender. As madam had left the wine behind, Gilpin girded it fast in two stone bottles to his belt, and started on his way. The horse being fresh, began to trot, and then to gallop; and John, being a bad rider, grasped the mane with both his hands. On went the horse, off flew John Gilpin's cloak, together with his hat and wig. The dogs barked, the children screamed, the turnpike men (thinking he was riding for a wager) flung open their gates. He flew through Edmonton, and never stopped till he reached Ware, when his friend, the calender, gave him welcome, and asked him to dismount. Gilpin, however, declined, saying his wife would be expecting him. So the calender furnished him with another hat and wig, and Gilpin harked back again, when similar disasters occurred, till the horse stopped at his house in London.

VANITY OF THE SCHOLASTICS.

It was much the fashion, especially with German and Dutch authors who wrote in Latin, to convert their names into a Greek or Latin equivalent, or to give them a classic turn as:

The real name of Agricola, the reformer and friend of Luther, was Schneider (a tailor). This was assuming another name.

Bucer was a Dominican and friend of Luther, whose real name was Kuhhorn (cow-horn), of which *bucer* is the Greek.

Desiderius Erasmus was the assumed name of a Dutchman whose real name was Gheraerd Gheraerd, of which Desiderius is the Latin and Erasmos the Greek.

Melanchthon was one of Luther's friends, whose real name was Schwartzerde (black earth). Melanchthon is the Greek for a "heap of black earth."

Œcolampadius is the Latinized name of Johan Hausschein, the reformer.

Paracelsus is Græco-Latin for Bombast. The name was assumed by A. T. Bombast.

Porphyry is the Grecized name of Malk, a disciple of Plotin.

Regiomontānus, a Latinized form of Königsberger. Johann Müller called himself Königsberg in Franconia.

Stobæus is Stubbs Latinized.

COPYRIGHT AND INTERNATIONAL COPYRIGHT.

Copyright is the exclusive right to multiply copies of a written or printed composition, or of a work of art. Such rights were claimed by authors even before the introduction of printing. After the invention of the printing press, the right to publish books became the subject of licenses and patents. The terms of copyright and the legal questions bearing on them are so complex as to demand study in special treatises.

The first steps to secure international copyright to protect the works of artists and authors were taken at Berne, September, 1885. Prominent part in the proceedings was taken by representatives from Great Britain, France, Germany, Italy, Spain, Netherlands, Sweden and Norway, Switzerland, Tunis, Hayti, and Honduras. A draft of a convention was settled to secure in each of these countries international copyright. An office of International Union for protection of literary and artistic works was established under the supervision of the Swiss Government. In Great Britain, acts of Parliament were passed successively in 1844, 1852, 1875, and 1886, to secure to foreign authors and artists the copyright of their works, provided British artists and authors were reciprocally protected in such foreign countries, discretion being given to Her Majesty, by order in council, to fix conditions of compliance. In the United States an international copyright act came into force July 1, 1891, securing under certain conditions, artistic and literary copyright between Great Britain and the United States. One important condition of the new act is its requirement that the work must be printed in the United States to secure the advantages of international copyright.

HOW LITERATURE PAYS.

Goldsmith received $300 for the "Vicar of Wakefield;" Moore, $15,000 for "Lalla Rookh;" Victor Hugo, $12,000 for "Hernani;" Chateaubri-

and, $110,000 for his works; Lamartine, $16,000 for "Travels in Palestine;" Disraeli, $50,000 for "Endymion;" Anthony Trollope, $315,000 for forty five novels; Lingard, $21,500 for his "History of England;" Mrs. Grant received over $600,000 as royalty from the sale of "The Personal Memoirs of U. S. Grant."

LITERARY PSEUDONYMS.

Pseudonyms are false names adopted by an author to conceal his identity. Originally "pseudonymous" was used of works deliberately published under a false name, so as to induce people to believe them the works of those whose names they bore, or of works erroneously attributed to a wrong person.

The following list of pseudonyms adopted by famous authors has been specially compiled for this Manual:

A.L.O.E. (—*A Lady of England*).... Charlotte Maria Tucker.
Adeler, Max.... ....Chas. Heber Clark.
Alexander, Mrs.....Mrs. A. F. Hector.
Anstey, F...... ... F. Anstey Guthrie.
Atlas ("World").....Edmund Yates.
Bab..... ....W. S. Gilbert.
Bede, Cuthbert..... Rev. Edw. Bradley.
Bell, Acton .....Anne Brontë.
" *Currer*..... ....Charlotte Brontë.
" *Ellis*..... ... Emily Jane Brontë.
Bibliophile, Jacob....Paul Lacroix.
Bickerstaff, Isaac....Dean Swift. and Steele in *Tatler*.
Biglow, Hosea.....J. Russell Lowell.
Billings, Josh ... ...Henry W. Shaw.
Bon Gaultier.....Sir Theodore Martin and W. E. Aytoun.
Boz..... ....Chas. Dickens.
Breitmann, Hans....Chas. G. Leland.
Carmen Sylva.....Queen of Roumania.
Conway, Hugh.....F. J. Fargus.
Cornwall, Barry .. B. W. Procter.
Crayon Geoffrey.....Washington Irving.
Danbury Newsman.J. M. Bailey
Elia.....Charles Lamb.
Eliot, George.....Mrs. Mary Ann Cross (*née* Evans.)
Ettrick Shepherd.....James Hogg.
Fern, Fanny..... Mrs. Sara P. Parton.
Graduate of Oxford.John Ruskin.
Greenwood, Grace...Mrs. Lippincott.
Greville, Henry.....Mme. Durand.
H. H..... .....Mrs. Helen Hunt Jackson.
Hamilton, Gail.... . Mary Abigail Dodge.
Harland, Marion....Mrs. M. V. Terhune (*née* Hawes.)
Historicus.. .... Sir W. Vernon Harcourt.
Jean Paul.....J. P. F. Richter.
Kerr, Orpheus C....R. H. Newell.
Knickerbocker, Diedrich ..... Washington Irving.
L. E. L..... ... Letitia E. Landon.
Lee, Vernon..... ....Violet Paget.
Loti, Pierre.....Julien Viaud.
Lyall, Edna.....Ada Ellen Bayly.
Maitland, Thomas...R. Buchanan.
Malet, Lucas ....Mrs. Harrison (*née* Kingsley.)
Mathers, Helen.....Mrs. Reeves (*née* Matthews.)
Meredith, Owen.....Earl of Lytton.
Miller, Joaquin.... . C. H Miller.
Nasby, Petroleum V...D. R. Locke.
North, Christopher..Prof. John Wilson.
O'Dowd, Cornelius..Charles Lever.
Ogilvy, Gavin. .... J. M. Barrie.
Old Humphrey.....G. Mogridge.
Omnium, Jacob.....Matt. Jas. Higgins.
Opium Eater.....T. De Quincey.
Optic, Oliver.....Wm. T. Adams.
O'Rell, Max..... Paul Blouet.
Ouida.....Louise de la Rame.
Q..... .....{Douglas Jerrold. A. T. Quiller Couch.
Parley, Peter.....{Sam. G. Goodrich; W. Martin; G. Mogridge; W. Tegg; J. Bennett.
Phiz..... ....Hablot K. Browne.
Pindar, Peter... ....John Wolcot.
Plymley, Peter..... Sydney Smith.
Prout, Father..... F. S. Mahony.
Quirinus..... ..... Dr. Döllinger.
Rob Roy.....John Macgregor.
Sand, George.....Madame Dudevant (*née* Dupin.)
*Scriblerus, Martinus*Swift, Pope, and Arbuthnot.
Shirley . .....John Skelton.
Slick, Sam.....T. C. Haliburton.
Stepniak ....S. Kartcheffsky.
Stretton, Hesba.....Sarah Smith.
Syntax, Dr..... .. Wm. Combe.
Tilcomb, Timothy....J. G. Holland.
Titmarsh, Michael Angelo. .. ..W. M. Thackeray.
Twain, Mark.....Samuel L. Clemens.
Tytler, Sarah.....Miss H. Keddie.
Uncle Remus.... ....Joel Chandler Harris.
Urban, Sylvanus ...Editor of *The Gentleman's Magazine*.
Vacuus Viator.....Thomas Hughes.
Voltaire..... ....Francois Marie Arouet.
Ward, Artemus.....Chas. F. Browne.
Warden, Florence...Mrs. G. James.
Wetherell, Elizabeth.Susan Warner.
*Winter, John Strange*Mrs. H. E. V. Stannard.
Zadkiel. .....Capt. R. J. Morrison, R. N.

THE FORTY IMMORTALS OF THE FRENCH ACADEMY.

	Year Elected.	Name.	Born.	Predecessor.
1	1855...	Ernest Wilfred Gabriel Baptiste Legouvé	Paris, 1807....	Ancelot.
2	1862. .	Jacques Victor Albe, Duc de Broglie.	Paris, 1821..... ...	Lacordaire, Père.
3	1865....	Charles Camille Doucet....	Paris. 1812.....	De Vigny.
4	1870....	Emile Olivier.....	Marseilles, 1825	De Lamartine.
5	1870....	Xavier Marmier.....	Pontarlier, 1808.....	De Pongerville.
6	1871...	Henri Eugéne Orléans, Duc d'Aumale.....	Paris. 1822.....	De Montalembert.
7	1871....	Camille Félix Michel Rousset	Paris, 1821.....	Prévost-Paradol.
8	1874....	Alfred Jean Francois Mézières.....	Paris. 1826.....	St. Marc-Girardin.
9	1874....	Alexandre Dumas	Paris. 1824	Lebrun.
10	1875....	John Emile Lemoinne.....	London, 1815.....	Janin.
11	1876....	Jules Francois Simon..	Lorient, 1814.....	De Rémusat.
12	1876....	Marie Louis Antoine Boissier	Nimes, 1823....	Patin.
13	1877....	Victorien Sardou..	Paris 1831.....	Autran.
14	1878....	Hippolyte Adolph Taine....	Vouziers, 1826.....	De Loménie.
15	1878....	Edmund Armand, Duc A'Audiffret-Pasquier.....	Paris, 1823.....	Dupanloup (Bishop).
16	1880 ...	Maxime Du Camp.... ...	Paris, 1822.....	St. René-Taillandier.
17	1880....	Aimé Joseph Edmund Rousse	Paris. 1817.	Jules Favre.
18	1881....	René Francis Armand Sully-Prudhomme	Paris. 1839.....	Duvergier de Huranne.
19	1881....	Louis Pasteur.	Dôle. 1822.	Littré.
20	1881....	Charles Victor Cherbulliez..	Geneva, 1829.....	Dufaure.
21	1882....	Adolphe Louis Albert Perraud	Lyons, 1828.....	Auguste Barbier.
22	1882 ...	Edouard Jules Henri Pailleron	Paris, 1839.....	Charles Blanc.
23	1883....	Louis Charles de Mazade-Percin	Castelsarrazin, 1820..	Comte de Champagny.
24	1884....	Francoise Edouard Joachin Coppée	Paris. 1842.....	De Laprade.
25	1884....	Ferdinand Marie de Lesseps	Versailles, 1805.....	Henri Martin.
26	1884 ...	Jean Victor Duruy...	Paris, 1811.	Mignet.
27	1884....	Joseph Louis Francois Bertrand	Paris, 1822.....	J. B. Dumas.
28	1884....	Ludovic Halévy.....	Paris. 1834...	Comte d'Haussonville.
29	1886 ...	Jean Baptiste Leon Say.....	Paris, 1816.....	Edmond About.
30	1886....	Charles Marie Leconte de Lisle	Isle de Réunion, 1818.	Victor Hugo.
31	1886.. .	Aimé Marie Edouard Hervé	Isle de Réunion, 1835.	Duc de Noailles.
32	1886....	Vallery Clement Octave Gréard.....	Vire, 1828.....	Comte de Falloux.
33	1888...	Othenin Paul de Cléron, Comte d'Haussonville....	Gurey, 1843.....	Caro.
34	1888...	Jules Arnaud Arsène Claretie	Limoges. 1840.....	Cuvillier-Fleury.
35	1888....	Henri Meilhac.....	Paris, 1830.....	Labiche.
36	1888....	Eugéne Marie Melchior Vicomte de Vogue.....	Nice, 18.8.....	Désiré Nisard.
37	1890....	Charles Louis de Saulces de Freycinet.	Foix, 1828..... ..	Emile Augier. Octave Feuillet.
38	1891. ..	Louis Marie Julien Viaud (Pierre Lotl)	Rochefort. 1850.....	
39	1893....	Ernest Lavisse..... ...	Nouvien, 1842.....	Jurien de la Graviére.
40	.....	Seat Vacant *	....	Joseph Ernest Rénan.

*In April, 1893, M. Challemel-Lacour was elected to fill vacancy caused by death of M. Rénan

SOME LARGE LIBRARIES.

Statistics of twenty leading libraries in this country show that of over $500,000 spent, a little more than $170,000 was devoted to books, while other expenses consumed $358,000. In the Mercantile Library of New York city it cost 14 cents to circulate a volume; in the Astor 14½ cents are spent on each volume, or 27 cents on each reader; in Columbia College Library, 21½ cents per reader; in the Library Company of Philadelphia, 26 cents per volume, or 10 cents per head. The largest library in the world is the National Library of France, founded by Louis XIV, which now contains 1,400,000 books, 300,000 pamphlets, 175,000 manuscripts, 300,000 maps and charts, 150,000 coins and medals, 1,300,000 engravings, and 100,000 portraits. The Library of Congress is the largest in this country, as it contained 570,000 volumes in 1886. The Mercantile Library of Philadelphia was the seventh in point of size in this country in the same year. There are in the United States 5,338 libraries.

The famous institution called the British Museum began with the purchase by the government for $100,000 of the magnificent library and collection of Sir Hans Sloane, which has since been constantly added to, and now contains a million and a half printed volumes. It now comprises the Cottonian, the Harlean, the Towney, the Elgin, the Knight, the Slade, and other collections. In 1881 the Natural History, Geological and Mineralogical Collections were removed to a new building at South Kensington.

The famous Bodleian Library was originally the public library of Oxford University, restored by Sir Thomas Bodley in 1598. His first act was the presentation of a large collection of valuable books, purchased on the Continent at an expense of $50,000. By the Copyright Act it is entitled to a copy of every book printed in Great Britain. The number of volumes it possesses is estimated at about four hundred thousand, in addition to between twenty thousand and thirty thousand in manuscript.

HONORS AMONG BOOKS.

I. The first book printed in German (1461) was the "Edelstein," (or "precious stone") by Ulrich Boner—a collection of fables, tales, and maxims in reproof of evil ways and for the encouragement of piety and virtue. The first printed book was the Psalter of Mainz, 1457; the next was William Durand's "Holy Office" ("*Rationale divinorum officiorum libris viii distinctum*"), printed 1459; the third was Balbis' "*Gatholicon*," a sort of dictionary, 1460; then comes the "Edelstein," in German.

II. The highest price ever offered for a book was $96,000. It was a Hebrew Bible in the possession of the Vatican. In 1512, the Jews of Venice wished to buy this book, but though Julius II. was greatly pressed for money in order to keep up the Holy League against Louis XII. of France, he declined to part with the volume.

The German Government paid $50,000 for the missal given by Leo X. to Henry VIII., along with the parchment conferring on him the right to assume the title of "Defender of the Faith." Charles II. gave these relics to the ancestor of the famous Duke of Hamilton, whose library was sold by Messrs. Sotheby, Wilkinson, and Hodge of London.

III. The largest book on one subject is the "*Acta Sanctorum*," of the Bollandists, not yet completed (1893). The 61st volume was published in 1875.

IV. The oldest book in the world is a papyrus containing the proverbs of Ptah-hotep, an Egyptian king, who reigned some 3000 B.C., which

was before the birth of Abraham. It has been in part translated by Chabas and others, and may be seen in English dress in J. D. Heath's "Record of the Patriarchal Age."

FIRST NEWSPAPERS.

In ancient ROME an official gazette, called "*Acta Diurna*," was issued under the management and authority of the government, and posted up daily in some prominent place in the city.
In VENICE a paper of public intelligence, called "*Gazetta*," was published in 1620
In ENGLAND the first *weekly* newpaper was published by Nathaniel Butler in..... 1622
In ENGLAND the first *daily* newspaper in..... 1709
In FRANCE the first *weekly* newspaper was published in..... 1631
In FRANCE the first *daily* in..... 1777
In AMERICA, at Boston, a newspaper was published in 1690
In IRELAND the first newspaper, called "*Pue's Occurrences.*," appeared in..... 1700
In IRELAND the oldest Dublin newspaper, "*The Freeman's Journal*," in 1755
In GERMANY the first newspaper was published in..... 1715
In HOLLAND the first newspaper was published in..... 1732
In TURKEY the first newspaper was published in..... 1795
In AUSTRALIA the first newspaper was published in. 1803

BOOKS WE HEAR ABOUT.

"The Pilgrim's Progress," by John Bunyan: Pt. i., 1678; pt. ii., 1684. This is supposed to be a dream, and to allegorize the life of a Christian, from his conversion to his death. His doubts are giants, his sins a pack, his Bible a chart, his minister Evangelist, his conversion a flight from the City of Destruction, his struggle with besetting sins a fight with Apollyon, his death a toilsome passage over a deep stream, and so on. The second part is Christiana and her family led by Greatheart through the same road, to join Christian, who had gone before.

Robinson Crusoe, a tale by Daniel Defoe. Robinson Crusoe ran away from home, and went to sea. Being wrecked, he led for many years a solitary existence on an uninhabited island of the tropics, and relieved the weariness of life by numberless contrivances. At length he met a human being, a young Indian, whom he saved from death on a Friday. He called him his "man Friday," and made him his companion and servant. Defoe founded this story on the adventures of Alexander Selkirk, sailing master of the "Cinque Ports Galley," who was left by Captain Stradling on the desolate island of Juan Fernandez for four years and four months (1704-1709), when he was rescued by Captain Woodes Rogers and brought to England.

"The Vicar of Wakefield," a novel, by Oliver Goldsmith, 1766. Dr. Primrose, a simple-minded, pious clergyman, with six children. He begins life with a good fortune, a handsome house, and wealthy friends, but is reduced to utter poverty without any fault of his own, and, being reduced like Job, like Job he is restored. First he loses his fortune through the rascality of the merchant who held it. His next great sorrow was the elopement of his eldest daughter, Olivia, with Squire Thorn-

hill. His third was the entire destruction by fire of his house, furniture, and books, together with the savings which he had laid by for his daughters' marriage portions. His fourth was being incarcerated in the county jail by Squire Thornhill for rent, his wife and family being driven out of house and home. His fifth was the announcement that his daughter Olivia "was dead," and that his daughter Sophia had been abducted. His sixth was the imprisonment of his eldest son, George, for sending a challenge to Squire Thornhill. His cup of sorrow was now full, and comfort was at hand: (1) Olivia was not really dead, but was said to be so in order to get the vicar to submit to the squire, and thus obtain his release. (2) His daughter Sophia had been rescued by Mr. Burchell (*Sir William Thornhill*), who asked her hand in marriage. (3) His son George was liberated from prison, and married Miss Wilmott, an heiress. (4) Olivia's marriage to the squire, which was said to have been informal, was shown to be legal and binding. (5) The old vicar was released, re-established in his vicarage, and recovered a part of his fortune.

"Ivanhoe," a novel by Sir W. Scott (1820). The most brilliant and splendid of romances in any language. Rebecca, the Jewess, was Scott's favorite character. The scene is laid in England in the reign of Richard I., and we are introduced to Robin Hood in Sherwood Forest, banquets in Saxon halls, tournaments, and all the pomp of ancient chivalry. Rowena, the heroine, is quite thrown into the shade by the gentle, meek, yet high-souled Rebecca.

"Vanity Fair," a novel by W. M. Thackeray (1848). Becky (Rebecca) Sharp, the daughter of a poor painter, dashing, selfish, unprincipled, and very clever, contrives to marry Rawdon Crawley, afterwards his excellency Colonel Crawley, C. B., governor of Coventry Island. Rawdon expected to have a large fortune left him by his aunt, Miss Crawley, but was disinherited on account of his marriage with Becky, then a poor governess. Becky contrives to live in splendor on "nothing a year," gets introduced at court, and is patronized by Lord Steyne, earl of Gaunt; but this intimacy giving birth to a great scandal, Becky breaks up her establishment, and is reduced to the lowest Bohemian life. Afterwards she becomes the "female companion" of Joseph Sedley, a wealthy "collector," of Boggley Wollah, in India. Having insured his life and lost his money, he dies suddenly under very suspicious circumstances, and Becky lives for a time in splendor on the Continent. Subsequently she retires to Bath, where she assumes the character of a pious, charitable Lady Bountiful, given to all good works. The other part of the story is connected with Amelia Sedley, daughter of a wealthy London stock-broker, who fails, and is reduced to indigence. Captain George Osborne, the son of a London merchant, marries Amelia, and old Osborne disinherits him.. The young people live for a time together, when George is killed in Waterloo. Amelia is reduced to great poverty, but is befriended by Captain Dobbin, who loves her to idolatry, and after many years of patience and great devotion, she consents to marry him. Becky Sharp rises from nothing to splendor, and then falls; Amelia falls from wealth to indigence, and then rises.

MYTHOLOGY AND FOLK-LORE.

'Tis a history
Handed from ages down; a nurse's tale,
Which children, open ey'd and mouth'd devour,
And thus, as garrulous ignorance relates,
We learn it and believe.
—SOUTHEY.

VAGARIES OF HUMAN BELIEF.

Chinese history, or fable, begins 2205 B. C.

Orion was a giant hunter, noted for his beauty.

Puck and Robin Goodfellow are identical myths.

The Ogri were giants said to feed on human flesh.

Euphrasia was the name of "the Grecian Daughter."

Olympus, in Greece, was on the confines of Macedonia.

In Vulcan's mirror were seen the past, present and future.

The toadstool is called in Ireland the "fairy's mushroom."

A task that makes no progress is likened to Penelope's web.

At the age of one year Jupiter was making war on the Titans.

All known languages have a story of "Jack the Giant-Killer."

Loki was the god of strife and evil in Scandinavian mythology.

Jupiter chose the eagle as the best preservative against lightning.

The original Tom Thumb was a dwarf knighted by King Arthur.

The *obi* superstitions of the negro are still prevalent in the South.

The *leprechaun* was an Irish goblin who could direct you to hidden gold.

Apotheosis was the deification, or raising of a mortal to the rank of a god.

The pagan priests of Egypt were the first to reduce mythology to a system.

As late as 1805 a woman was tried for witchcraft at Kircudbright, Scotland.

The oak is sacred to Jupiter because he first taught mankind to live upon acorns.

Where fable ends and real history begins is an obscure line in the annals of all nations.

The chief astronomers, from Ptolemy down to Kepler, were all believers in astrology.

According to Homer Mesopotamia had a breed of asses which never fled from an enemy.

"Born in the foam of the sea," is the signification of Aphrodite, the Greek name for Venus.

The goat was the animal usually sacrificed to Bacchus, on account of its propensity to destroy the vine.

It is Memnon's statue, at Thebes, which is said to make musical sounds when struck by the morning sun.

The ordinary events of nature transformed into allegory would explain very many of the legends of the ancients.

The gypsies are said to be wanderers because they refused shelter to the Virgin and Christ Child on the flight into Egypt.

The peculiar term "Black Art," is applied to the jugglery of conjurers and wizards who profess to have dealings with the devil.

The wave-crests in Killarney Lake, Ireland, are called by the fishermen the "white horses of O'Donoughue," from a chieftain of that ilk who perished in its waters.

The proper name of Confucius was "Kong," but his followers added "fu-tse," meaning master or teacher. His books are regarded by the Chinese as the fountain of all wisdom.

Davy Jones is a sailor's familiar name for a malignant sea-spirit or the devil generally. The common phrase "Davy Jones' locker" is applied to the ocean as the grave of men drowned at sea.

In all ancient mythologies the sneeze is significant. If a Hindoo, while performing his morning ablutions in the Ganges, should sneeze before finishing his prayers, he immediately begins them over again.

It was at one time a common belief that infants were sometimes taken from their cradles by fairies, who left instead their own weakly and starveling elves. The children so left were called "changelings."

In the northern mythology the Walkyri are either nine or three times nine divine maidens who cleave their way through air and water to lead to Odin those who have fallen in battle and who are worthy of Walhalla.

Dagon, the national god of the Philistines, half-man, half-fish, is mentioned in the Old Testament as having temples at Gaza and Ashdod, Several names of places prove that the worship of Dagon existed also in other parts of Palestine.

The supposed spirits which pervade the stars, each star having its own spirit (or soul), are termed astral spirits. Paracelsus taught that every human being had an astral spirit; hence the influence of a person's particular star on his life.

According to the ancient German superstition, the werewolf was a man-wolf, who had the form of a man by day and that of a wolf by night. Lycanthropy, or wolf-madness, was prevalent in Europe, and especially in Germany, in the fourteenth and fifteenth centuries.

The name of the favorite charger of Alexander the Great was Bucephalus, and this was probably also the name of a peculiar breed of horses in Thessaly. The young hero was the first to break in the steed, and thus fulfilled the condition stated by an oracle as necessary for gaining the crown of Macedon.

Cynosure is the Greek name for the constellation of the Little Bear, which contains the pole star, by which the Phœnician mariners steered their course. The name is metaphorically applied to anything that attracts attention, or to which all eyes are turned.

The Scottish brownie has a rival in Spain who is called the Ancho, and who haunts the shepherds' huts, warms himself at their fires, tastes their clotted milk and cheese, converses with the family, and is treated with familiarity mixed with terror. The Ancho hates church bells.

Sibylline books in Roman history contained the prophecies of the Cumæan Sibyl, bought by Tarquin the Proud, and preserved in the temple of Jupiter Capitolinus, with which they were burnt, 83 B. C. They were consulted by order of the senate, in cases of prodigies and calamities.

An amulet was any object worn as a charm. It is often a stone, or a piece of metal, with an inscription or some figures engraved on it, and is generally suspended from the neck, and worn as a preservative against sickness or witchcraft. Its origin, like its name, seems to be oriental.

The cockatrice is a fabulous monster, often confounded with the basilisk and regarded as possessing similar deadly powers. To the charms of the basilisk it added a dragon's tail, armed with a sting; and it shared also its power of destroying by a glance, so often referred to in Shakespeare and other early writers.

Cuneiform is a term descriptive of a form of writing of which the component parts resemble a wedge. It was used by the peoples of Babylonia, Assyria and other ancient nations, and was inscribed upon stone, bronze, iron, glass and clay. It was not until the seventeenth century that the wedge-shaped characters were suspected to be other than "idle fancies of the architects."

The talisman was a species of charm, consisting of a figure engraved on metal or stone when two planets are in conjunction, or when a star is at its culminating point, and supposed to exert some protective influence over the wearer of it. The terms talisman and amulet are often considered nearly synonymous. but the proper distinctive peculiarity of the former is its astrological character.

Arthur's Round Table contained seats for one hundred and fifty knights. Three were reserved, two for honor, and one (called the "siege perilous") for Sir Galahad, destined to achieve the quest of the sangreal. If any one else attempted to sit in it, his death was the certain penalty. The table shown visitors at Winchester is one of several claimed to be the "original" *Arthur's Round Table.*

In the fanciful system of the Paracelsists the Undines were female water-sprites. They intermarry readily with human beings, and the Undine who gives birth to a child under such a union receives, with her babe, a human soul. But the man who takes an Undine to wife must be careful not to go on the water with her, or at least must not vex her while there, or she returns to her native element.

Isis was an Egyptian goddess. The deities of ancient Egypt might be male or female, but in neither case could the Egyptian worshipper conceive a deity as existing in isolation: to every deity of either sex there must be a counterpart of the other sex. It was to this notion that the goddess Isis owed her origin; she was the counterpart of Osiris, and this fact is expressed in the statement that she was at once wife and sister of Osiris.

In classical antiquities the cornucopia, the horn or symbol of plenty, is placed in the hands of emblematical figures of Plenty, Liberality, and the like, who are represented as pouring from it an abundance of fruits or corn. It is frequently used in architecture, sculpture and heraldry.

A redoubtable hero was Berserker in the Scandinavian mythology. He was the father of twelve sons who inherited the name of Berserker, together with his frenzied war-like fury or "berserker rage." Baring Gould connects the name with the were-wolf myth. It literally means "bear-sark" (shirt), not "bare-shirt."

The word hippodrome is derived from the Greek *hippos*, "a horse," and *dromos*, "a racecourse," and is the Greek name for the place set apart for horse and chariot races. Its dimensions were, according to the common opinion, half a mile in length, and one-eighth of a mile in breadth. In construction and all the most important points of arrangement it was the counterpart of the Roman Circus.

The circus originally was an open oblong building for Roman entertainments. There were eight in Rome, the largest being the Circus Maximus, said to be 9,331½ feet long and 2,187 feet wide, and able to seat 260,000 persons. There were held in them horse and chariot races, gymnastic contests, the Trojan games, and contests with wild beasts. The modern circus is so universally known as to need no description.

Befana is a kind of Santa Klaus, who visits children on Twelfth Night to put presents in a stocking hung at their bed. Befana, it is said, was an old woman busy cleaning her house when the Magi passed by, but she said she would look out for them on their return. As they went home another way, she is looking out for them still, but entertains a great fondness for young children. The word is a corruption of "Epiphania" (Epiphany.)

The tall, narrow circular towers—called round towers—tapering gradually from the base to the summit, found abundantly in Ireland, and occasionally in Scotland, are among the earliest and most remarkable relics of the ecclesiastical architecture of the British Islands. They have long been the subject of conjecture and speculation, but there can be now no doubt that they are the work of Christian architects, and built for religious purposes.

Walhalla is the place of residence for the fallen in battle in Scandinavian Mythology. The name Walhalla was given to a magnificent marble structure of nearly the same proportions as the Parthenon, erected by Ludwig I. of Bavaria (1830-41) as a temple of fame for all Germany, on an eminence two hundred and fifty feet above the Danube, near Ratisbon. By means of statues, busts, reliefs, and tablets the mythology and history of Germany are illustrated, and her greatest names commemorated.

Thulê was the name given by ancient Greeks and Romans to the most remote northern portion of the world then known. Whether an island or part of a continent nobody knows. It is first mentioned by Pythĕas, the Greek navigator, who says it is "six days' sail from Britain," and that its climate is a "mixture of earth, air and sea." Ptolemy, with more exactitude, tells us that the 63° of north latitude runs through the middle of Thulê, and adds that "the days there are at the equinoxes [*sic*] twenty-four hours long." This, of course is a blunder, but the latitude would do roughly for Iceland.

The sacred geese were kept by the ancient Romans in the temple of Juno on the Capitoline Hill. These geese are especially noted in Roman story, because when a party of Gauls climbed stealthily up the steep rock unobserved by the sentinels, and even without disturbing the watch-dogs, the geese gave the alarm by their cackling, and Manlius, being aroused, reached the rampart just in time to push over the foremost Gaul, and thus saved the capitol.

Idris was a mythical figure in Welsh tradition, supposed to have been at once a giant, a prince and an astronomer. On the summit of Cader Idris in Merionethshire may be seen his rock-hewn chair, and an ancient tradition told that any Welsh bard who should pass the night upon it would be found the next morning either dead, mad, or endowed with supernatural poetic inspiration. This tradition forms the subject of a fine poem by Mrs. Hemans; the gigantic size of the chair is alluded to in Tennyson's "Geraint and Enid."

The name of Bucentaur was that of the state-galley in which the former Doges of Venice used to sail out every year on Ascension Day, amid great festivities, in order, by sinking a ring into the sea, to wed it in token of perpetual sovereignty. The word signifies a monstrous figure of half bull half man, such as may originally have been depicted on the vessel. The ceremony was already in use in the thirteenth century; in 1798 the last Bucentaur, built in 1722-29, was burned by the French, but some portions, spared for their gold work, are still preserved in the arsenal.

The Griffin is a chimerical creature, and first mentioned by Aristeas about 500 B. C. The griffin is variously described and represented, but the shape in which it most frequently appears is that of a cross between a lion and an eagle, having the body and legs of the former, with the beak and wings of the latter, and the addition of pointed ears. Sometimes the four legs are all like those of an eagle, and the head is that of a cock. The figure seems to have originated in the East, as it is found in ancient Persian sculptures. Amongst the Greeks it appears on antique coins, and as an ornament in classical architecture.

Nectar is the name given by Homer, Hesiod, Pindar and the Greek poets generally, and by the Romans, to the beverage of the gods, their food being called *Ambrosia*. But Sappho and Alcman make nectar the food of the gods and ambrosia their drink. Homer describes nectar as resembling red wine, and represents its continued use as causing immortality. By the later poets nectar and ambrosia are represented as of most delicious odor; and sprinkling with nectar or anointing with ambrosia is spoken of as conferring perpetual youth, and they are assumed as the symbols of everything most delightful to the taste.

Vishnu, "the Preserver," is the second god of the Hindu triad, now the most worshipped of all Hindu gods. Originally in the oldest Vedas a sun-god, he gradually increased in influence at the expense of other gods, and in the later Purána is the supreme god. Always a friendly god, he became specially the friend and benefactor of man in his *avatars* or incarnations. The Vishnuite doctrines were gathered into one body in the eleventh century as the Vishnu-Purána. Of twenty principal sects and a hundred minor brotherhoods some are merely local, others are wealthy bodies and wide-spread, and one has grown into a warlike nation, the Jains.

Damon and Pythias, two noble Pythagoreans of Syracuse, are remembered as the models of faithful friendship. Pythias having been condemned to death by the elder Dionysius, the tyrant of Syracuse, begged to be allowed to go home, for the purpose of arranging his domestic affairs, Damon pledging his own life for the reappearance of his friend at the time appointed for his doom. Dionysius consented, and Pythias returned just in time to save Damon from death. Struck by so noble an example of mutual affection, the tyrant pardoned Pythias, and desired to be admitted into their sacred fellowship.

The Sacred Ibis was one of the birds worshipped by the ancient Egyptians, and was supposed, from the color of its feathers, to symbolize the light and shade of the moon. Its feathers were supposed to scare and even kill the crocodile. It appeared in Egypt at the rise and disappeared at the inundation of the Nile, and was said to deliver Egypt from the winged and other serpents which came from Arabia. As it did not make its nest in Egypt it was believed to be self-engendering, and to lay eggs for a lunar month. It was celebrated for its purity, and only drank from the purest water; besides which, it was fabled to entertain the most invincible love of Egypt, and to die of self-starvation if transported elsewhere.

A very engaging though mythical creature is the "brownie", which in Scottish rural districts is believed to assist in the housework at nights. The brownie is good tempered and industrious, but has a great objection to slovenliness and marks his sense of neglect by pinching slatternly maids. Good housewives leave out a bowl of milk for him. If the farm changed hands the brownie usually left, which may explain why there are none now. The resemblance of the Scotch brownie to the *Robin Goodfellow*, of English, and the *Kobold* of German folklore is obvious, but perhaps they may be traced further to the *lares* or hearth spirits of the ancients. The Russian *domovoy*, Mr. Ralston tells us, lives behind the stove, and in some families a portion of the supper is always set aside for him; for if he is neglected he waxes wroth and knocks the tables and benches about at night. Spirits with the same functions elsewhere are the Lithuanian *kanka*, the Finnish *paara*, and the French *lutin*.

Here and there in the highways and byways of the world many legends and superstitions still linger and continue to retain their ancient prestige. In Galicia, the province northeast of Hungary, the peasants believe that when a star falls to earth it is at once transformed into a rarely beautiful woman with long hair, blonde and glittering. This splendid creature, miraculously engendered, exercises on all who come in contact with her a magical influence. Every handsome youth unfortunate enough to attract her attention becomes her victim. Thus having allured them to her, she encircles them with her arms in an embrace that becomes gradually tighter and tighter until the poor dupes are strangled to death. If certain words are murmured the moment the star starts to fall, they cause her allurements to lose their power. From this superstition springs the custom of wishing, while a star is seen hurrying through the air, a wish said surely to come true if completely formulated before the light is extinguished. The Spaniards saw in the falling stars the souls of their dead friends, the thread of whose existence was cut short by destiny. The Arabs thought these stars to be burning stones thrown by the angels onto the heads of devils who attempted to enter paradise.

Hecatomb, in the worship of the Greeks, and in other ancient religions, meant a sacrifice of a large number of victims, properly, although by no means necessarily, one hundred. As early as the time of Homer it was usual only to burn the legs wrapped up in the fat and certain parts of the intestines, the rest of the victim being eaten at the festive meal after the sacrifice. In Athens the hecatomb was a most popular form of sacrifice; while the thrifty Spartans, on the contrary, limited the number both of the victims and of the sacrifices. In the hecatomb, strictly so called, the sacrifice was supposed to consist of one hundred bulls, but other animals were frequently substituted.

Belief in witches has caused the death of thousands of innocent persons in almost all countries. In England alone it is computed that thirty thousand persons were burned at the stake for witchcraft. The witchcraft frenzy rose to its height in the reign of James I., who wrote a book on demonology. It revived under the Long Parliament, when Matthew Hopkins, the witch-finder, plied his trade (1645-7). Executions for witchcraft were prohibited by an edict of Louis XIV. in 1670. At Salem, New England, in 1692, nineteen persons were hanged by the Puritans for witchcraft. The last execution for witchcraft in England was that of Mrs. Hicks and her daughter, aged nine, who were hanged at Huntingdon in 1716. The last execution in Scotland was at Dornoch in 1722. The laws against witchcraft were repealed in 1736. The last witch was officially tried and executed in 1793 in Posen.

STORY OF THE NIBELUNGEN LIED.

This famous historic poem, which is called the Iliad of Germany, was produced about 1210, and is divided into two parts, and thirty-two lieds or cantos. The first part ends with the death of Siegfried, and the second part with the death of Kriemhild.

Siegfried, the youngest of the kings of the Netherlands, went to Worms, to crave the hand of Kriemhild in marriage. While he was staying with Günther, king of Burgundy (the lady's brother), he assisted him to obtain in marriage Brunhild, queen of Issland, who announced publicly that he only should be her husband who could beat her in hurling a spear, throwing a huge stone, and in leaping. Siegfried, who possessed a cloak of invisibility, aided Günther in these three contests, and Brunhild became his wife. In return for these services Günther gave Siegfried his sister Kriemhild in marriage. After a time the bride and bridegroom went to visit Günther, when the two ladies disputed about the relative merits of their respective husbands, and Kriemhild, to exalt Siegfried, boasted that Günther owed to him his victories and his wife. Brunhild, in great anger, now employed Hagan to murder Siegfried, and this he did by stabbing him in the back while he was drinking from a brook.

Thirteen years elapsed, and the widow married Etzel, king of the Huns. After a time she invited Brunhild and Hagan to a visit. Hagan, in this visit, killed Etzel's young son, and Kriemhild was like a fury. A battle ensued, in which Günther and Hagan were made prisoners, and Kriemhild cut off both their heads with her own hand. Hildebrand, horrified at this act of blood, slew Kriemhild; and so the poem ends.—Authors unknown (but the story was pieced together by the minnesingers.)

The "Völsunga Saga" is the Icelandic version of the "Nibelungen Lied." This saga has been translated into English by William Morris.

The "Nibelungen Lied" has been ascribed to Heinrich von Ofterdingen, a minnesinger; but it certainly existed before that epoch, if not as a complete whole, in separate lays, and all that Heinrich von Ofterdingen could have done was to collect the floating lays, connect them, and form them into a complete story.

THE SAGAS OF THE NORSEMEN.

"Edda" was the name of the Bible of the ancient Scandinavians. A saga is a book of instruction, generally, but not always, in the form of a tale, like a Welsh "mabinogi." In the "Edda" there are numerous sagas. As our Bible contains the history of the Jews, religious songs, moral proverbs, and religious stories, so the "Edda" contained the history of Norway, religious songs, a book of proverbs and numerous stories. The original "Edda" was compiled and edited by Sæmun Sigfusson, an Icelandic priest and scald, in the eleventh century. It contains twenty-eight parts or books, all of which are in verse.

Two hundred years later, Snorro Sturleson, of Iceland, abridged, rearranged, and reduced to prose the "Edda," giving the various parts a kind of dramatic form, like the dialogues of Plato. It then became needful to distinguish these two works; so the old poetical compilation is called the "Elder" or "Rhythmical Edda," and sometimes the "Sœmund Edda" while the more modern work is called the "Younger" or "Prose Edda" and sometimes the "Sñorro Edda." The "Younger Edda" is, however, partly original. Pt. i. is the old "Edda" reduced to prose, but pt. ii. is Sturleson's own collection. This part contains "The discourse of Bragi" (the scald of the gods) on the origin of poetry; and here, too, we find the famous story called by the Germans "Nibelungen Lied." Besides the sagas contained in the "Eddas," there are numerous others. Indeed, the whole saga literature extends over two hundred volumes.

RIP VAN WINKLE AND OTHER SLEEPERS.

Almost all nations have a tradition about some sleeper, who will wake after a long period of dormancy. Of these the best known to us is Rip Van Winkle, who, according to the legend (Washington Irving's version), was a Dutch colonist of New York, who met a strange man in a ravine of the Kaatskill Mountains. Rip helped the stranger to carry a keg to a wild glen among rocks, where he saw a host of strange personages playing skittles in mysterious silence. Rip took the first opportunity of tasting the keg, fell into a stupor and slept for twenty years. On waking he found that his wife was dead and buried, his daughter married, his village remodelled, and America had become independent.

Epimenîdês the Gnostic slept for fifty-seven years.

Nourjahad, wife of the Mogul emperor Geangir, who discovered the otto of roses, slept seven years.

Gyneth slept five hundred years, by the enchantment of Merlin.

The seven sleepers slept for two hundred and fifty years in Mt. Celion.

St. David slept for seven years.

The following are not dead, but only sleep till the fullness of their respective times: Elijah, Endymion, Merlin, King Arthur, Charlemagne, Frederick Barbarossa and his knights, the three Tells, Desmond of Kilmallock, Thomas of Erceldoune, Bobadil el Chico, Brian Boroimhe, Knez Lazar, King Sebastian of Portugal, Olaf Tryggvason, the French slain in the Sicilian Vespers, and one or two others.

INDIAN FOLK LORE.

As a specimen of the folk-lore of our own aborigines none can surpass in interest the story of Hiawatha, the prophet-teacher, son of Mudjekeewis (*the west wind*) and Wenonah daughter of Nokomis. He represents the progress of civilization among the North American Indians. Hiawatha first wrestled with Mondamin (*maize*), and having subdued it, gave it to man for food. He then taught man navigation; then he subdued Mishe Nahma (*the sturgeon*), and taught the Indians how to make oil therefrom for winter. His next exploit was against the magician Megissognon, the author of disease and death; having slain this monster, he taught men the science of medicine. He then married Minnehaha (*laughing water*), and taught man to be the husband of one wife, and the comforts of domestic peace. Lastly, he taught man picture-writing. When the white men came with the gospel, Hiawatha ascended to the kingdom of Ponemah, the land of the hereafter. Among many other accomplishments when Hiawatha put on his moccasins, he could measure a mile at a single stride.

> He had moccasins enchanted,
> Magic moccasins of deer-skin;
> When he bound them round his ankles
> At each stride a mile he measured!
>
> —LONGFELLOW, *Hiawatha*, iv.

THE LANGUAGE OF GEMS.

AMETHYST.—Peace of mind. Regarded by the ancients as having the power to dispel drunkenness.

BLOODSTONE.—I mourn your absence. Worn by the ancients as an amulet or charm, on account of the medicinal and magical virtues it was supposed to possess.

DIAMOND.—Pride. Awarded supernatural qualities from the most remote period down to the Middle Ages. Has the power of making men courageous and magnanimous. Protects from evil spirits. Influences the gods to take pity upon mortals. Maintains concord between husband and wife, and for this reason was held as the most appropriate stone for the espousal ring.

EMERALD.—Success in love. Mentioned in the Bible as worn in the breast plate of the High Priest as an emblem of chastity.

RUBY.—A cheerful mind. An amulet against poison, sadness, evil thoughts. A preservative of health. Admonishes the wearer of impending danger by changing color.

SAPPHIRE.—Chastity. Procures favor with princes. Frees from enchantment. Prevents impure thoughts.

TOPAZ.—Fidelity. Calms the passions.

TURQUOISE.—Success and happiness. Preserves from contagion.

GARNET.—Fidelity in every engagement. Onyx.—Reciprocal love. Opal.—Pure thoughts. Pearl.—Purity and innocence.

THE GIFT OF SECOND SIGHT.

Second-sight, a gift of prophetic vision, was long supposed in the Scottish Highlands and elsewhere to belong to particular persons. The most common form it took was to see the *wraith*, *fetch*, or shadowy second self of some person soon to die, often wrapped in a shroud, or attended with some other of the special circumstances of death or burial.

Of course the prophetic character may easily enough have been a mere additional assumption, the time of occurrence of distant events being apt to be confused with the time of hearing of them. In the popular mind everywhere the mystery of death, and the instinctive human longing to believe in a continuity of conscious spiritual life and sympathy, have generated a belief in the probability of an appearance coinciding with, or soon succeeding, the death of an individual; and from this the step is easy to a belief in the possibility of similar appearances before death, in order to foreshadow or forewarn.

OLYMPIAN DEITIES AND HEROES.

ACHA'TES. The trusty friend of Æneas.

ACH'ERON. The son of Sol and Terra, changed by Jupiter into a river of hell. Used also for hell itself.

ACHIL'LES. A Greek who signalized himself in the war against Troy. Having been dipped by his mother in the river Styx, he was invulnerable in every part except his right heel, but was at length killed by Paris with an arrow.

ACTÆ'ON. A famous hunter, who, having surprised Diana as she was bathing, was turned by her into a stag and killed by his own dogs.

ADO'NIS. A beautiful youth beloved by Venus and Proserpine. He was killed by a wild boar. When wounded, Venus sprinkled nectar into his blood, from which flowers sprang up.

ÆGE'US. A king of Athens, giving name to the Ægean Sea by drowning himself in it.

Æ'GIS. A shield given by Jupiter to Minerva. Also the name of a Gorgon whom Pallas slew.

ÆNE'AS. A Trojan prince, son of Anchises and Venus; the heroe of Virgil's poem, the "Æneid."

Æ'OLUS. The god of the winds.

ÆSCULA'PIUS. The god of medicine and the son of Apollo. Killed by Jupiter with a thunderbolt for having restored Hippolytus to life.

AGAMEM'NON. King of Mycenæ and Argos, brother to Menelaus, and chosen captain-general of the Greeks at the siege of Troy.

A'JAX. Next to Achilles, the bravest of all the Greeks in the Trojan war.

AL'BION. The son of Neptune; went into Britain and established a kingdom.

ALCES'TE, or ALCESTIS. The daughter of Pelias and wife of Admetus, brought back from hell by Hercules.

AMPHI'ON. A famous musician, the son of Jupiter and Antiope, who built the city of Thebes by the music of his harp. He and his brother Zethus are said to have invented music.

AMPHITRI'TE. Goddess of the sea and wife of Neptune.

ANDROM'ACHE. Wife of Hector.

ANDROM'EDA. The daughter of Cepheus and Cassiopeia, who, contesting with Juno and the Nereides for the prize of beauty, was bound to a rock by them and exposed to a sea monster, but was rescued and married by Perseus.

ANTIG'ONE. The daughter of Œdipus and Jocasta, famous for her filial piety.

A'PIS. Son of Jupiter and Niobe; called also Serapis and Osiris. Taught the Egyptians to sow corn and plant vines, and worshipped by them in the form of an ox.

APOL'LO. The son of Jupiter and Latona, and the god of music, poetry, eloquence, medicine and the fine arts.

ARACH'NE. A Lydian princess, turned into a spider for contending with Minerva at spinning.

ARETHU'SA. One of Diana's nymphs, who was changed into a fountain.

AR'GUS. The son of Aristor; said to have had a hundred eyes; but being killed by Mercury when appointed by Juno to guard Io, she put his eyes on the tail of a peacock. Also an architect, who built the ship Argo.

ARIAD'NE. The daughter of Minos, who, from love to Theseus, gave him a clew of thread to guide him out of the Cretan labyrinth; being afterward deserted by him, she was married to Bacchus and made his priestess.

ARI'ON. A lyric poet of Methymna, who, in his voyage to Italy, saved his life from the cruelty of the mariners by means of dolphins, which the sweetness of his music brought together.

ATALAN'TA. A princess of Scyros, who consented to marry that one of her suitors who should outrun her, Hippomenes being the successful competitor.

AT'LAS. One of the Titans and king of Mauretania; said to have supported the world on his shoulders; he was turned into a mountain by Perseus.

AURO'RA. The goddess of morning.

BAC'CHUS. The son of Jupiter and Semele and the god of wine.

BELLER'OPHON. The son of Glaucus, king of Ephyra. He underwent numerous hardships for refusing an intimacy with Sthenobœa, wife of Prœtus, the king of Argos. With the aid of the horse Pegasus he destroyed the Chimera.

BELLO'NA. Goddess of war; sister of Mars.

BERENI'CE. A Grecian lady; the only person of her sex permitted to see the Olympic games.

BO'REAS. The son of Astræus and Aurora; the name of the north wind.

BRIA'REUS. A giant who warred against heaven, and was feigned to have had fifty heads and one hundred arms.

BUSI'RIS. The son of Neptune; a tyrant of Egypt and a monstrous giant, who fed his horses with human flesh; was killed by Hercules.

CAD'MUS. The son of Agenor, king of Phœnicia; founder of Thebes and the reputed inventor of sixteen letters of the Greek alphabet.

CADU'CEUS. Mercury's golden rod or wand.

CALYP'SO. One of the Oceanides, who reigned in the island of Ogygia, and entertained and became enamored of Ulysses.

CASSAN'DRA. A daughter of Priam and Hecuba, endowed with the gift of prophecy by Apollo.

CAS'TOR. A son of Jupiter and Leda. He and his twin brother Pollux shared immortality alternately, and were formed into the constellation Gemini.

CEN'TAURS. Children of Ixion, half men and half horses, inhabiting Thessaly, and vanquished by Theseus.

CER'BERUS. The three-headed dog of Pluto, guarding the gates of hell.

CE'RES. The daughter of Saturn and Cybele, and goddess of agriculture.

CHA'RON. The son of Erebus and Nox, and ferryman of hell, who conducted the souls of the dead over the rivers Styx and Acheron.

CHARYB'DIS. A ravenous woman, turned by Jupiter into a very dangerous gulf or whirlpool on the coast of Sicily.

CHI'MERA. A strange monster of Lycia, killed by Bellerophon.

CIR'CE. A noted enchantress.

CLYTEMNES'TRA. The faithless wife of Agamemnon, killed by her son Orestes.

CO'MUS. The god of merriment.

CRO'CUS. A young man enamored of the nymph Smilax, and changed into a flower.

CRŒ'SUS. King of Lydia; the richest man of his time.

CU'PID. Son of Mars and Venus; the god of love

CYB'ELE. The daughter of Cœlus and Terra; wife of Saturn and mother of the gods.

CY'CLOPS. Vulcan's workmen, giants who had only one eye in the middle of their foreheads; slain by Apollo in a pique against Jupiter.

DÆD'ALUS. A most ingenious artificer of Athens, who formed the Cretan labyrinth and invented the auger, axe, glue, plumb-line, saw, and masts and sails for ships.

DANA'IDES, or BE'LIDES. The fifty daughters of Danaus, king of Argos, all of whom, except Hypermnestra, killed their husbands on the first night of their marriage, and were therefore doomed to draw water out of a deep well and eternally pour it into a cask full of holes.

DAPH'NE. A nymph beloved by Apollo, the daughter of the River Peneus, changed into a laurel tree.

DAPH'NIS. A shepherd of Sicily and son of Mercury, educated by the nymphs and inspired by the Muses with the love of poetry.

DEJANI'RA. Wife of Hercules, who killed herself in despair, because her husband burnt himself to avoid the torment occasioned by the poisoned shirt she had given him to regain his love.

DEL'PHI. A city of Phocis, famous for a temple and an oracle of Apollo.

DEUCA'LION The son of Prometheus and king of Thessaly, who, with his wife Pyrrha, was preserved from the general deluge, and repeopled the world by throwing stones behind them, as directed by the oracle.

DIAN'A. Daughter of Jupiter and Latona and goddess of hunting, chastity and marriage.

DI'DO. Founder and queen of Carthage; daughter of Belus and wife of Sichæus. According to Virgil, she entertained Æneas on his voyage to Italy, and burnt herself through despair because he left her.

DIOME'DES. Son of Tydeus and king of Ætolia; gained great reputation at Troy, and, with Ulysses, carried off the Palladium.

DRY'ADES. Nymphs of the woods.

ECH'O. The daughter of Aer, or Air, and Tellus, who pined away for love of Narcissus.

ELEC'TRA. Daughter of Agamemnon and Clytemnestra; instigated her brother Orestes to revenge their father's death upon their mother and Ægisthus.

ELYS'IUM. The happy residence of the virtuous after death.

ENCEL'ADUS. Son of Titan and Terra and the strongest of the giants; conspired against Jupiter and attempted to scale heaven.

ENDYM'ION. A shepherd and astronomer of Caria, condemned to a sleep of thirty years.

ER'EBUS. The son of Chaos and Nox; an infernal deity. A river of hell, and often used by the poets for hell itself.

EUMEN'IDES. A name of the Furies.

EURO'PA. The daughter of Agenor; carried by Jupiter, in the form of a white bull, into Crete.

EURY'ALUS. A Peloponnesian chief in the Trojan war. Also a Trojan and a friend of Nisus, for whose loss Æneas was inconsolable.

EURYD'ICE. Wife of Orpheus; killed by a serpent on her marriage day.

EVAD'NE. Daughter of Mars and Thebe; threw herself on the funeral pyre of her husband, Capaneus.

FATES. Powerful goddesses, who presided over the birth and the life of mankind, were the three daughters of Nox and Erebus, named Clotho, Lachesis and Atropos. Clotho was supposed to hold the distaff, Lachesis to draw the thread

of human life, and Atropos to cut it off.

FAU'NI. Rural gods, described as having the legs, feet and ears of goats.

FAU'NUS. Son of Mercury and Nox and father of the Fauni.

FLO'RA. The goddess of flowers.

FORTU'NA. The goddess of fortune; said to be blind.

FUR'IES. The three daughters of Nox and Acheron, named Alecto, Tisiphone and Megæra, with hair composed of snakes, and armed with whips, chains, etc.

GALATE'A. A sea-nymph, daughter of Nereus and Doris, passionately loved by Polyphemus.

GAN'YMEDE. The son of Tros, king of Troy, whom Jupiter, in the form of an eagle, snatched up and made his cup-bearer.

GOR'DIUS. A husbandman, but afterward king of Phrygia, remarkable for tying a knot of cords, on which the empire of Asia depended, in so intricate a manner that Alexander, unable to unravel it, cut it asunder.

GOR'GONS. The three daughters of Phorcus and Ceta, named Stheno, Euryale and Medusa. Their bodies were covered with impenetrable scales, their hair entwined with serpents; they had only one eye betwixt them, and they could change into stones those whom they looked on.

GRA'CES. Three goddesses, Aglaia, Thalia and Euphrosyne, represented as beautiful, modest virgins, and constant attendants on Venus.

HAR'PIES. Winged monsters, daughters of Neptune and Terra, named Aello, Celæno and Ocypete, with the faces of virgins, the bodies of vultures and hands armed with claws.

HE'BE. The daughter of Juno; goddess of youth and Jupiter's cup-bearer; banished from heaven on account of an unlucky fall.

HEC'TOR. The son of Priam and Hecuba; the most valiant of the Trojans, and slain by Achilles.

HEC'UBA. The wife of Priam, who tore her eyes out for the loss of her children.

HEL'ENA, or HEL'EN. The wife of Menelæus and the most beautiful woman of her age, who, running away with Paris, occasioned the Trojan war.

HER'CULES. The son of Jupiter and Alcmena; the most famous hero of antiquity, remarkable for his great strength and numerous exploits.

HERMI'ONE. The daughter of Mars and Venus and wife of Cadmus; was changed into a serpent. Also, a daughter of Menelæus and Helena, married to Pyrrhus.

HE'RO. A beautiful woman of Sestos, in Thrace, and priestess of Venus, whom Leander of Abydos loved so tenderly that he swam over the Hellespont every night to see her; but he, at length, being unfortunately drowned, she threw herself, in despair, into the sea.

HESPER'IDES. Three nymphs, Ægle, Arethusa and Hesperethusa, daughters of Hesperus. They had a garden bearing golden apples, watched by a dragon, which Hercules slew and bore away the fruit.

HES'PERUS. The son of Japetus and brother to Atlas; changed into the evening star.

HYACIN'THUS. A beautiful boy, beloved by Apollo and Zephyrus. The latter killed him, but Apollo changed the blood that was spilt into a flower called hyacinth.

HY'ADES. Seven daughters of Atlas and Æthra, changed by Jupiter into seven stars.

HY'DRA. A celebrated monster, or serpent, with seven, or, according to some, fifty heads, which infested the Lake Lerna. It was killed by Hercules.

HY'MEN. Son of Bacchus and Venus, and god of marriage.

HYP'ERION. Son of Cœlus and Terra.

ICA'RIUS. Son of Œbalus; having received from Bacchus a bottle of wine, he went into Attica to show men the use of it, but was thrown into a well by some shepherds whom he had made drunk, and who thought he had given them poison.

IC'ARUS. The son of Dædalus, who, flying with his father out of Crete into Sicily and soaring too high, melted the wax of his wings and fell into the sea, thence called the Icarian sea.

I'O. The daughter of Inachus, turned by Jupiter into a white heifer, but afterward resumed her former shape; was worshipped after her death by the Egyptians under the name of Isis.

IPHIGENI'A. The daughter of Agamemnon and Clytemnestra, who, standing ready as a victim to be sacrificed to appease the ire of Diana, was by that goddess transformed into a white hart and made a priestess.

I'RIS. The daughter of Thumas and Electra; one of the Oceanides and messenger and companion of Juno, who turned her into a rainbow.

IXI'ON. A king of Thessaly and father of the Centaurs. He killed his own sister, and was punished by being fastened in hell to a wheel perpetually turning.

JA'NUS. The son of Apollo and Creusa and first king of Italy, who, receiving the banished Saturn, was rewarded by him with the knowledge of husbandry and of things past and future.

JA'SON. The leader of the Argonauts, who, with Medea's help, obtained the golden fleece from Colchis.

JU'NO. The daughter of Saturn and Ops; sister and wife of Jupiter, the great queen of heaven and of all the gods, and goddess of marriages and births.

JU'PITER, or ZEUS. The son of Saturn and Ops; the supreme deity of the heathen world, the most powerful of the gods and governor of all things.

LAOC'ÖON. A son of Priam and Hecuba and high priest of Apollo, who opposed the reception of the wooden horse into

Troy, for which he and his two sons were killed by serpents.

LAOM'EDON. A king of Troy, killed by Hercules for denying him his daughter Hesione after he had delivered her from the sea-monster.

LA'RES. Inferior gods at Rome, who presided over houses and families; sons of Mercury and Lara.

LE'THE. A river of hell whose waters caused a total forgetfulness of things past.

LU'CIFER. The name of the planet Venus, or morning star; said to be the son of Jupiter and Aurora.

LU'NA. The moon; the daughter of Hyperion and Terra.

LUPER'CALIA. Feasts in honor of Pan.

MARS. The god of war.

MEDE'A. The daughter of Æetes and a wonderful sorceress or magician; she assisted Jason to obtain the golden fleece.

MEM'NON. The son of Tithonus and Aurora and king of Abydon; killed by Achilles for assisting Priam, and changed into a bird at the request of his mother.

MENELA'US. The son of Atreus, king of Sparta; brother of Agamemnon and husband of Helen.

MEN'TOR. The faithful friend of Ulysses, the governor of Telemachus, and the wisest man of his time.

MER'CURY, or **HERMES.** The son of Jupiter and Maia; messenger of the gods, inventor of letters, and god of eloquence, commerce and robbers.

MI'DAS. A king of Phrygia, who had the power given him of turning whatever he touched into gold.

MINER'VA, or **PALLAS.** The goddess of wisdom, the arts, and war; produced from Jupiter's brain.

MIN'OTAUR. A celebrated monster, half man and half bull.

MNEMOS'YNE. The goddess of memory, and mother of the nine Muses.

MO'MUS. The son of Nox and god of folly and pleasantry.

MOR'PHEUS. The minister of Nox and Somnus, and god of sleep and dreams.

MU'SES. Nine daughters of Jupiter and Mnemosyne, named Calliope, Clio, Erato, Euterpe, Melpomene, Polyhymnia, Terpsichore, Thalia and Urania. They were mistresses of all the sciences and governesses of the feasts of the gods.

MU'TA. Goddess of silence.

NA'IADES. Nymphs of streams and fountains.

NARCIS'SUS. A beautiful youth, who, falling in love with his own reflection in the water, pined away into a daffodil.

NEM'ESIS. One of the infernal deities and goddess of revenge.

NEP'TUNE. The son of Saturn and Ops; god of the sea and, next to Jupiter, the most powerful deity.

NES'TOR. The son of Neleus and Chloris and king of Pylos and Messenia. He fought against the Centaurs, was distinguished in the Trojan war, and lived to a great age.

NI'OBE. Daughter of Tantalus and wife of Amphion, who, preferring herself to Latona, had her fourteen children killed by Diana and Apollo, and wept herself into a stone.

NOX. The most ancient of all the deities and goddess of night.

OCEAN'IDES. Sea-nymphs, daughters of Oceanus; three thousand in number.

OCE'ANUS. An ancient sea-god.

ŒD'IPUS. King of Thebes, who solved the riddle of the Sphinx, unwittingly killed his father, married his mother, and at last ran mad and tore out his eyes.

OM'PHALE. A queen of Lydia, with whom Hercules was so enamored that he submitted to spinning and other unbecoming offices.

ORES'TES. The son of Agamemnon.

OR'PHEUS. A celebrated Argonaut, whose skill in music is said to have been so great that he could make rocks, trees, etc., follow him. He was the son of Jupiter and Calliope.

PALLA'DIUM. A statue of Minerva, which the Trojans imagined fell from heaven, and with which their city was deemed unconquerable.

PAN. The son of Mercury and the god of shepherds, huntsmen and the inhabitants of the country.

PANDO'RA. The first woman, made by Vulcan, and endowed with gifts by all the deities. Jupiter gave her a box which contained all the evils and miseries of life, but with hope at the bottom.

PAR'IS, or **ALEXANDER.** Son of Priam and Hecuba; a most beautiful youth, who ran away with Helen, and thus occasioned the Trojan war.

PARNAS'SUS. A mountain of Phocis famous for a temple of Apollo; the favorite residence of the Muses.

PEG'ASUS. A winged horse belonging to Apollo and the Muses, which sprang from the blood of Medusa when Perseus cut off her head.

PENA'TES. Small statues, or household gods.

PENEL'OPE. A celebrated princess of Greece, daughter of Icarus and wife of Ulysses; celebrated for her chastity and constancy in the long absence of her husband.

PER'SEUS. Son of Jupiter and Danaë; performed many extraordinary exploits by means of Medusa's head.

PHA'ETON. Son of Sol (Apollo) and Climene. He asked the guidance of his father's chariot for one day as a proof of his divine descent; but, unable to manage the horses, set the world on fire, and was therefore struck by Jupiter with a thunderbolt into the River Po.

PHILOME'LA. The daughter of Pandion, king of Athens; changed into a nightingale.

PHIN'EAS. King of Paphlagonia; had his eyes torn out by Boreas, but was recompensed with the knowledge of futurity. Also, a king of Thrace, turned into a stone by Perseus.

PHŒ'BUS. A title of Apollo.
PLE'IADES. Seven daughters of Atlas and Pleione, changed into stars.
PLU'TO. The son of Saturn and Ops, brother of Jupiter and Neptune and the god of the infernal regions.
POMO'NA. The goddess of fruits and autumn.
PRI'AM. The last king of Troy, the son of Laomedon, under whose reign Troy was taken by the Greeks.
PROME'THEUS. The son of Japetus; said to have stolen fire from heaven to animate two bodies which he had formed of clay, and was therefore chained by Jupiter to Mount Caucasus, with a vulture perpetually gnawing his liver.
PROS'ERPINE. Wife of Pluto.
PRO'TEUS. The son of Oceanus and Tethys; a sea-god and prophet, who possessed the power of changing himself into any shape.
PSY'CHE. A nymph beloved by Cupid and made immortal by Jupiter.
PYG'MIES. A nation of dwarfs only a span long, carried away by Hercules.
PYR'AMUS and THISBE. Two lovers of Babylon, who killed themselves with the same sword, and thus caused the berriesof the mulberry tree, under which they died, to change from white to red.
PY'THON A huge serpent, produced from the mud of the deluge; killed by Apollo, who, in memory thereof, instituted the Pythian games.
RE'MUS. The elder brother of Romulus, killed by him for ridiculing the city walls.
ROM ULUS. The son of Mars Ilia; thrown into the Tiber by his uncle, but saved, with his twin brother, Remus, by a shepherd; became the founder and first king of Rome.
SAT'URN. A son of Cœlus and Terra; god of time.
SAT'YRS. Attendants of Bacchus; horned monsters, half goats, half men.
SEMIR'AMIS. A celebrated queen of Assyria, who built the walls of Babylon; was slain by her own son Ninyas and turned into a pigeon.
SILE'NUS. The foster-father, master and companion of Bacchus. He lived in Arcadia, rode on an ass and was drunk every day.
SI'RENS. Sea-nymphs, or sea-monsters, the daughters of Oceanus and Amphitrite.
SIS'YPHUS. The son of Æolus; a most crafty prince, killed by Theseus and condemned by Pluto to roll up hill a large stone, which constantly fell back again.
SOM'NUS. The son of Erebus and Nox and the god of sleep.
SPHINX. A monster who destroyed herself because Œdipus solved the enigma she proposed.
STEN'TOR. A Grecian whose voice is reported to have been as strong and as loud as the voices of fifty men together.
STYX. A river of hell.
SYLVANUS. A god of woods and forests.
TA'CITA. A goddess of silence.
TAN'TALUS. The son of Jupiter and king of Lydia, who served up the limbs of his son Pelops to try the divinity of the gods, for which he was plunged to the chin in a lake of hell and doomed to everlasting thirst and hunger.
TAR'TARUS. The part of the infernal regions in which the wicked were punished.
TAU'RUS. The bull under whose form Jupiter carried away Europa.
TELEM'ACHUS. The only son of Ulysses.'
TI'TAN. The son of Cœlus and Terra, elder brother of Saturn and one of the giants who warred against heaven.
TRI'TON. The son of Neptune and Amphitrite, a powerful sea-god and Neptune's trumpeter.
TROY. A city of Phrygia, famous for holding out a siege of ten years against the Greeks, but finally captured and destroyed.
ULYS'SES. King of Ithaca, who, by his subtlety and eloquence, was eminently serviceable to the Greeks in the Trojan war.
VE'NUS, or APHRODITE. One of the most celebrated deities of the ancients, the wife of Vulcan, the goddess of beauty, the mother of love, and the mi tress of the graces and of pleasures.
VES'TA. The sister of Ceres and Juno, the goddess of fire and patroness of vestal virgins.
VUL'CAN. The god who presided over subterraneous fire, patron of workers in metal.
ZEPH'YRUS. The west wind, son of Æolus and Aurora and lover of the goddess Flora.

ELYSIUM AND HADES.

Elysium, among the Greeks and Romans, was the regions inhabited by the blessed after death. They are placed by Homer at the extremities of the earth, by Plato at the antipodes, and by others in the Fortunate Islands (the Canaries). They were at last transferred to the interior of the earth, which is Virgil's notion. The happiness of the blessed consisted in a life of tranquil enjoyment in a perfect summer land, where the heroes, freed from all care and infirmities, renewed their favorite sports.

Hades was originally the Greek name of the lord of the lower or invisible world, afterwards called Pluto; but in later times, as in the Greek Scriptures, it is applied to the region itself. With the ancients Hades was the common receptacle of departed spirits.

INDUSTRY AND COMMERCE.

Each climate needs what other climes produce,
And offers something to the general use;
No land but listens to the common call,
And in return receives supply from all.
—COWPER.

FACTS AND CHANNELS OF TRADE.

Envelopes were first used in 1839.

The first lucifer match was made in 1829.

First steamer crossed the Atlantic in 1819.

The first horse railroad was built in 1826-7.

The first newspaper advertisement was in 1652.

The greatest grain port in the world is Chicago.

Cork is the bark taken from a species of oak tree.

Edward III. is called the Father of English commerce.

The canning industry is making great headway in Georgia.

There are 20,000,000 acres under cotton in the United States.

Soap was first manufactured in England in the sixteenth century.

First American express ran from New York to Boston—W. F. Harnden's.

Until 1776 cotton spinning was performed by the hand spinning wheel.

The first mill-stones sent over here from England paid £11 freight in 1628.

Postage stamps first came into use in England in 1840; in this country in 1847.

The Wetherills of Philadelphia made white lead before the American Revolution.

During 1891 there were 584 factories in this country engaged in the silk industry.

Since 1840 the world's production of meat has increased 57 per cent, that of grain 120 per cent.

The exports of this country in the fiscal year 1891-2, amounted to $970,506,282; imports, $828,321,646.

The largest number of whaling ships in the world is sent out by Nantucket and New Bedford, Mass.

Certificates for proficiency in commercial knowledge are now granted at Cambridge and Oxford universities.

Ostrich taming is a very profitable industry in Africa, where it is computed there are over 150,000 tame birds.

First sugar-cane in the United States was cultivated near New Orleans, 1751; first sugar mill was built in 1758.

From August '91 to August '92 our cotton crop was reported at 9,035,379 bales, an increase of 382,000 over previous year.

The Harrisons, who figure so extensively in our manufactures, made oil of vitriol in Philadelphia in 1806, the first in the country.

The leather industry in the United States was worth $130,000,000 in the administration of Gen. Taylor and employed 146,000 persons.

Virginia led off just before the Constitution in putting a tariff on foreign leather and shoes, and Congress soon followed the example.

It is said to cost less to send the product of an acre of wheat from Dakota to England than it does to manure an acre of land in England so that it can grow good wheat.

In 1860 Chicago had less than twelve millions of total products for all her factories, while today such factories as the Pullman works turn out that value of cars alone in a year.

The name demurrage in mercantile law means the sum paid by the owner of a ship to the charterer for keeping the ship in port a longer time than that provided in the charter.

According to Orfila, the proportion of nicotine in Havana tobacco is two per cent; in French six per cent, and in Virginia tobacco seven per cent. That in Brazilian is still higher.

The production of mercury reaches about 55,000 to 66,000 frascos a year. The frascos are enormous bottles of cast iron, which contain four arrobes of about twenty-five pounds each.

The Cinchona tree is indigenous to Peru, and from it quinine is extracted; it derives its name from the Countess of Chinchon, who was cured of fever by the bark (Peruvian bark).

Paper making ranks high among the industries of the United States. Last year there were about 1,100 mills in operation in this country, having an average capacity of about 16,000 pounds of paper.

A new substance called valzin is now being manufactured in Berlin under a patent, and it is claimed to be two hundred times sweeter than sugar and free from certain objectionable properties of saccharin.

A commission agent, or merchant, is a person employed to sell goods consigned or delivered to him by another who is called his principal, for a certain percentage, commonly called his commission or factorage.

The world annually consumes about 650,000 tons of coffee. Estimating coffee as being worth about $400 per ton, which is about a good average, this represents an outlay of $260,000,000 for this one beverage each year.

New Orleans boasts the largest custom-house in this or any other land. It was begun in 1848 and over thirty years elapsed before it was finished and ready for use. It is built of Quincy granite and the interior is finished in finest marble. It has 111 rooms. The height from the

pavement to the top of the cornice is 80 feet, and to the top of the light on the dome, 187 feet. The dome itself is 49 feet square and 61 feet high. The estimated total cost of building, $4,900,000.

Caviare is the salted roe of the common sturgeon and other fishes of the same genus. It is esteemed by epicures as a delicacy, but the taste is purely an acquired one—hence the phrase, "caviare to the multitude."

A commercial traveler is a person whose occupation is to transact business as the accredited traveling representative of a trading house to other trading houses. In this country he is commonly styled a "drummer."

The latest authority puts the silk production of the world down at $320,000,000 worth of silk annually, of which France produces two-fifths of the whole, with her 230,000 looms. China and Japan grow one-half of all the raw silk.

Clipper is a name familiarly given to a sailing ship built expressly for speed. Aberdeen was long celebrated for building swift tea-clippers, which since 1860 have been gradually superseded by steamers. The Baltimore clippers were also famous.

The Zollverein ("Customs Union") was a union of the German States for fiscal purposes under the leadership of Prussia. The first step towards its establishment was taken in 1818. It continued to exist until the German Empire was founded in 1871.

In 1820 we made only 400 tons of white lead in the whole country, and at the end of the civil war we made 14,000 tons. A white lead manufacturer of Cincinnati, Mr. Goshorn, was the President or Director-General of the Philadelphia Exhibition.

Customs duties are the portion of the revenue derived from a tax on imports. In some countries, customs duties are imposed on certain exports also. *Customs* is the general term applying to the service of their collection, also to the amounts collected.

One tug on the Mississippi can take in six days, from St. Louis to New Orleads, barges carrying 10,000 tons of grain, which would require seventy railway trains of fifteen cars each. Tugs in the Suez Canal tow a vessel from sea to sea in forty-four hours.

The average annual production of flax is as follows: Russia, 270,000 tons; Austria, 53,000; Germany, 48,000; Belgium and Holland, 38,000; France, 37,000; United Kingdom, 25,000; Italy, 23,000; United States, 12,000; Scandinavia, 4,000—total, 510,000 tons.

Corundum is a mineral consisting essentially of mere alumina, yet of great specific gravity—about four times that of water—and of remarkble hardness, being inferior in this respect only to the diamond. Mineralogists regard the sapphire as a variety of corundum.

Having imported some big cattle from Denmark, the Ingalls family of Lynn, near Boston, began a tannery about 1630, and a shoemaker followed in five years, and from these beginnings we record the vast shoe industry of Lynn, which has produced a Vice-President in Henry Wilson.

The Alpaca is a half domesticated fawn of the wild vicuña, closely related to the llama. It somewhat resembles the sheep in form, but has a longer neck and a more elegant head. It is a native of the Andes. About fifty years ago the wool of the alpaca, which, if allowed to remain for some seasons grows to a great length, became a regular article of

commerce. Sir Titus Salt, of England, was the first person to take steps toward raising the alpaca manufacture to its present status as a considerable industry. Various attempts have been made to introduce the alpaca into the United States, but all have resulted in failure.

There is a lake of pitch in the island of Trinidad about a mile and a half in circumference. While the asphaltum near the shores is sufficiently hard at most seasons to sustain men and quadrupeds, it grows soft and warm toward the center, and there it is in a boiling state.

Rum is a kind of spirit made by fermenting and distilling the "sweets" that accrue in making sugar from cane-juice. The scummings from the sugar pans give the best rum that any particular plantation can produce; scummings and molasses the next quality; and molasses the lowest.

Anthracite, called in America *hard coal*, as opposed to *bituminous* or *soft coal*, has its largest fields in Pennsylvania. It has only a small proportion of the constituents of bitumen and consists almost entirely of carbon. It burns nearly without smell, smoke or flame and gives out an intense heat.

The Chamber of Commerce is a body of merchants, traders, bankers and others, associated for the purpose of promoting the interests of its own members, of the town or district to which the society belongs, and of the community generally, in so far as these have reference to trade and merchandise.

The United States produces 2,220 pounds of grain to each inhabitant; Denmark, 2,005; Canada, 1,500; Russia, 1,200; Roumania, 1,150; Spain, 1,100; France, 990; Sweden, 980; Argentine Republic, 850; Australia, 760; Germany, 700; Belgium, 600; Portugal, 550; Ireland, 500; Scotland, 490; England, 360.

Disston sold his common saws for a profit of only seven cents on the dozen in order to underbid the English, who then controlled our market. Out of that manufacture the Disston boys have erected a whole town, and there is no man in Australia or the British Colonies that would not prefer the American saw to a foreign one.

The ways of auctioneers in different parts of the world vary greatly. In England and America the seller bears the expense of the sale, but in France the purchaser pays the cost, five per cent being added to the price he pays. In Holland it is still worse, the buyer being required to pay ten per cent additional for the expenses of the sale.

A Galleon was a large ship formerly used by the Spaniards to carry home the gold, silver, and other wealth contributed by the Mexican and South American colonies. They were armed, and had usually three or four decks, with bulwarks three or four feet thick, and stem and stern built up high like castles. They had a particular fascination for Drake and other Elizabethan rovers who so contrived that many of them never reached the ports of Spain.

The blue pigments in common use by artists are few in number, and consist of native and Artificial Ultramarine, Cobalt, Indigo and Prussian Blue. Genuine ultramarine, prepared from the mineral lapis lazuli, and ordinary cobalt blue, sold for artists' work, are permanent colors. They are used either alone, or mixed with other pigments, chiefly for skies and distances in landscape; and by themselves, or to make up grays and other mixed tints in figure painting.

The Mississippi river, from the source of the Missouri to the Eads jetties, is the longest river in the world. It is 4,300 miles in length and drains an area of 1,726,000 square miles. The Amazon, which is without doubt the widest river in the world, including the Beni, is 4,000 miles in length and drains 2,330,000 square miles of territory.

The name *bitumen* is especially given to a mineral substance of a highly inflammable character, marked by a peculiar odor. It is generally supposed to be a vegetable origin. The term is very broad in its use by mineralogists and by some is made to include the mineral resins, naphtha, petroleum, asphalt and mineral caoutchoue.

Bricks and common pottery ware owe their red color to the iron naturally contained in the clay of which they are formed, the iron, by the action of the heat, being converted into red oxide of iron. Some varieties of clay, like that found near Milwaukee, contain little or no iron, and bricks made from such clay are consequently of a light yellow color.

Curaçoa is a well known and esteemed liqueur, usually made in Holland with the dried peel of the Curaçoa orange, the peel being macerated with water, and then distilled with spirit and water. The result is sweetened with sugar, and a little Jamaica rum is often added. A palatable imitation can be made from the fresh peel of bitter oranges and whisky.

The fair of Nijni-Novgorod is the greatest in the world, the value of goods sold being as follows: 1841, $35,000,000; 1857, $60,000,000; 1876, $140,000,000; the attendance in the last named year including 150,000 merchants from all parts of the world. In that of Leipsic the annual average of sales is $20,000,000, comprising 20,000 tons of merchandise, of which two-fifths is books.

Coastguard is the name of a British organization formerly intended merely to prevent smuggling, but now constituted so as to serve as a defensive force also. The old coastguardsmen were in the employment of the Customs department; they were posted along the shore at spots commanding extensive views of the beach, and were expected to be always on the lookout for smugglers. In 1856 the coastguard was transferred to the Admiralty.

Ambergris is a fatty substance supposed to be a morbid secretion in the intestinal canal of the spermaceti whale. It is found in lumps weighing from half an ounce to one hundred pounds and upwards, either floating upon the sea or washed up on beaches. Often it is taken immediately from the whale. Ambergris is largely used in perfumery, and is worth about $30 an ounce. In general appearance it is like dirty, gray fat, with yellow or reddish striæ. It contains little black spots, caused by the presence of the beaks of the *sepia octopodia*. Spec. gravity .780 to .920.

In commerce and political economy Barter is the exchange of one commodity for another, as contrasted with the sale of commodities for money. It is simply a primitive form of exchange carried on in countries in which the use of money has not yet been introduced or is not prevalent. It was an economic stage through which all communities must have passed. Even yet in many rude countries barter is very common; and European travelers find it convenient to take with them weapons, tools and ornaments to exchange with the natives for their commodities. In civilized communities barter is a very exceptional thing, having been superseded by the use of money in various forms.

The much abused "potato bug" or Colorado beetle is an oval insect, half an inch long, its body of yellow color, spotted with black, with ten black longitudinal stripes on the elytra. It is a native of the Rocky Mountains. It is specially destructive to potato crops, and has at various times done great damage to those of the United States aud even managed to get into England and other countries.

General Washington, in 1789, visited a mill at Hartford, Conn., which made 5,000 yards of cloth and sold it at $5 a yard. Washington wrote in his diary: "Their broadcloths are not of the first quality as yet, but they are good, as are their cassinets, cassimeres, serges, and everlastings; of the broadcloth I ordered a suit to be sent to me at New York, and of the commoner goods a whole piece to make breeches for my servants."

In the working of railways very important advantages have been reaped from what is now known as the "block-system." The line is divided into a number of comparatively short sections, and no train is allowed to pass into a section till the signals at either end indicate that the section is entirely clear of other trains. The signals are directed by telegraph; and, if the system is strictly observed, collisions become impossible.

A viscid and adhesive substance which is placed on twigs of trees, or wire-netting, to catch the birds that may alight thereon, is thence called birdlime. It is generally prepared from the middle bark of the holly, mistletoe or distaff-thistle, by treating with water, boiling for several hours, straining and exposing to fermentation for several weeks. The result is a gelatinous mucilage, consisting mainly of a substance called *viscin*.

The degrees of alcohol in wines and liquors are: Beer, 4.0; porter, 4.5; ale, 7.4; cider, 8.6; Moselle, 9.6; Tokay, 10.2; Rhine, 11.0; Orange, 11.2; Bordeaux, 11.5; hock, 11.6; gooseberry, 11.8; Champagne, 12.2; claret, 13.3; Burgundy, 13.6; Malaga, 17.3; Lisbon, 18.5; Canary, 18.8; sherry, 19.0; Vermouth, 19.0; Cape, 19.2; Malmsey, 19.7; Marsala, 20.2; Madeira, 21.0; port, 23.2; Curaçoa, 27.0; aniseed, 33.0; Maraschino, 34.0; Chartreuse, 43.0; gin, 51.6; brandy, 53.4; rum, 53.7; Irish whisky, 53.9; Scotch, 54.3

"High seas" means the open sea, including the whole extent of sea so far as it is not the exclusive property of any particular country. The rule of international law is that every country bordering on the sea has the exclusive sovereignty over such sea to the extent of three miles from its shores; but all beyond, not within three miles of some other country, is open or common to all countries. The part of sea within three miles' distance is generally called the territorial sea of the particular country, or *mare clausum*.

Koumiss is an intoxicating beverage much esteemed by the Kalmucks. It is made from the soured and fermented milk of mares, and has an acidulous taste. A spirit is obtained from it by distillation. The tribes which use koumiss are free from pulmonary phthisis, and the observation of this fact has led to the beneficial use of an artificial koumiss made of ass's and cow's milk in cases of consumption. Of late extensive establishments have been founded in the southeast of Russia for treating invalids with genuine koumiss; one at Samara is visited by fifteen hundred patients in a season.

The Non-importation Act was passed by Congress on March 26, 1806, to prohibit the importation of British manufactures into the United States. The immediate cause of this prohibition was the annoyance caused by the "Leander" cruising off New York, and insisting on searching American vessels under pretence of looking for deserters. In one of these searches an American sailor, named Pearce, was killed, and the hostility of the States, which had long been smouldering, burst into a blaze.

India rubber is obtained mostly from the Seringueros of the Amazon, who sell it for about 12 cents a pound to the merchants of Para, but its value on reaching England or the United States is over 50 cents a pound. The best rubber forests in Brazil will ultimately be exhausted, owing to the reckless mode followed by the Seringueros or tappers. The ordinary product of a tapper's work is from 10 to 16 pounds daily. There are 120 india rubber manufacturers in the United States, employing 15,000 operatives, who produce 280,000 tons of goods, valued at $260,000 000, per annum.

Amber is a substance analogous to the vegetable resins, usually of a pale-yellow color. It occurs in round, irregular lumps, grains or drops, slightly brittle and emits a pleasant odor when rubbed. It melts at 536° F. Amber becomes negatively electric by friction, and possesses this property in a high degree—which, indeed, was first observed in it, and the term electricity is derived from *elektron*, the Greek name of amber. The specific gravity of amber is 1.065 to 1.070. Amber was anciently regarded as a charm against witchcraft. It is employed extensively in the arts, for the mouthpieces of pipes, for jewelry and other ornamental purposes.

The name alcohol (Arab. *al-koh'l*, originally applied to a collyrium, a very fine powder of antimony for staining the eyelids; afterwards "essence," "spirits"). Ordinary or *ethyl* alcohol is a limpid, colorless liquid, of a hot pungent taste, and having a slight but agreeable smell. It is the characteristic ingredient of fermented drinks, gives them their intoxicating quality, and is obtained from them by distillation. It is said to have been first obtained by this process by Abucasis, in the twelfth century. If we look at the extraordinary consumption of these liquors for various purposes, it is seen to be one of the most important substances produced by art.

The overland route to India, Australia and the East, is now understood to be that from England across France, through Mont Cenis by tunnel, to Brindisi in Italy, thence through the Levant, the Suez Canal, Red Sea and Indian Ocean. This makes the journey only about half as long as the voyage round by the Cape of Good Hope, a little over six thousand miles instead of more than twelve thousand. The saving in time is even more considerable. The time from London to Bombay is about four weeks, instead of three months by the Cape. In 1838 a monthly service was started to carry the mails across Egypt; but to Lieutenant Waghorn (1800-50) belongs the credit of first showing how the voyage from India could be still further shortened. On October 31, 1845, he arrived in London with the Bombay mail of October 1 (via Austria, Bavaria, Prussia and Belgium) The railway from Suez to Alexandria by Cairo was opened in 1858; but the great event that rendered the overland route available for passengers generally was the opening of the Suez Canal in 1869.

The variety of starch called Arrowroot is extracted from the roots of certain plants growing in tropical countries. It is a fine starchy farina, much valued as a delicacy, and as an easily digestible food for children and invalids. It is obtained from the root-stocks of different species of *Maranta*. The species chiefly yielding it is a native of tropical America, cultivated in the West India Islands, and growing about two feet high, with ovate-lanceolate somewhat hairy leaves, clusters of small flowers on two-flowered stalks, and globular fruit about the size of currants. The rhizomes are often more than a foot long, of the thickness of a finger, jointed, and almost white, covered with large papery scales. They are dug up when a year old, washed, carefully peeled, and reduced to a milky pulp. In Jamaica the roots are reduced by beating in deep wooden mortars; in Bermuda by means of a wheel-rasp; but modern machinery has now been introduced.

Steam navigation practically commenced in 1802, with the launch of the "Charlotte Dundas," which plied on Forth and Clyde Canal. She had one paddle-wheel near the stern. Fulton, who invented the paddle-box, established the American steamboat system with his "Clermont" (1807), which plied on the Hudson. The first steamer used in ocean navigation was Stevens' "Phœnix," which steamed from New York to Philadelphia in three days (1808.) The first passenger steamer in Great Britain was Henry Bell's "Comet," built at Port Glasgow (1812.) The first steam vessel in the British navy was also called the "Comet," built at Woolwich dockyard (1822). Regular steamboat communication across the Atlantic was established in 1838. The first screw steamer in Great Britain was the "Archimedes," built on the Thames (1839); the first screw steamer in the British navy was the "Dwarf (1843); and the first iron screw steamer was the "Fire Queen," built at Glasgow(1845). Ocean steamers are now built of steel.

A famous Indian product is Arrack, or Rack, a name often used for all sorts of distilled spirituous liquors, but chiefly applying to that procured from *toddy* or the fermented juice of the cocoa or other palms, as well as from rice, and the kind of brown sugar called *jaggery*. The palms in other tropical countries furnish a fermented beverage similar to the toddy of India, and in a few instances also it is distilled, but arrack essentially belongs to India and the adjacent countries. The cocoanut palm is a chief source of toddy or palm wine, which is obtained from trees ranging from twelve to sixteen years old, or in fact at the period when they begin to show the first indication of flowering. After the flowering shoot or spadix enveloped in its spathe is pretty well advanced, and the latter is about to open, the toddy-man climbs the tree and cuts off the top of the flower-shoot; he next ties a ligature round the stalk at the base of the spadix, and with a small cudgel he beats the flower-shoot and bruises it. This he does daily for a fortnight, and if the tree is in good condition, a considerable quantity of a saccharine juice flows from the cut apex of the flower-shoot, and is caught in a pot fixed conveniently for the purpose, and emptied every day. It flows freely for fifteen or sixteen days, and less freely day by day for another month or more; a slice has to be removed from the top of the shoot very frequently. The juice rapidly ferments, and in four days is usually sour; previous to that it is a favorite drink known in some parts of India as callu, and to the Europeans as toddy. When turning sour, it is distilled and converted into arrack. It is largely manufactured in Goa, Batavia, Ceylon and Siam. A similar

spirit is made pretty largely from the magnificent fan-leaved palm, and also from the so-called date-sugar palm. The name is also given to a spirit obtained from rice and sugar fermented with cocoanut sap. An imitation arrack may be prepared by dissolving ten grains of benzoic acid in a pint of rum.

RAILWAY MILEAGE OF THE WORLD.

The dates of the opening of the first railways, and the mileage in 1891, of the principal countries are as under:

Austria-Hungary	20th September, 1828	16,467
Belgium	5th May, 1835	3,215
Denmark	18th September, 1844	1,223
France	1st October, 1828	23,586
Germany	7th December, 1835	25,969
Great Britain and Ireland	27th September, 1825	20,073
Greece	18th February, 1869	239
Italy	3d October, 1839	8,117
Netherlands	13th September, 1839	1,887
Norway	14th July, 1853	970
Portugal	9th July, 1854	1,280
Russia	4th April, 1838	19,027
Spain	30th October, 1848	6,127
Sweden	9th February, 1851	1,623
Switzerland	15th June, 1844	1,999
Turkey	4th October, 1860	1,096
Egypt	26th January, 1856	1,494
India	18th April, 1853	16,996
United States	17th April, 1827	167,000
Canada	19th March, 1847	14,000
Mexico	8th October, 1850	5,827
Argentine Republic	14th December, 1864	5,798
Brazil	30th April, 1854	5,779
Chili	January, 1852	1,996
Colombia	January, 1880	220
Paraguay	1st October, 1863	149
Peru	29th May, 1851	994
Uruguay	1st January, 1869	537
Venezuela	9th February, 1866	441

AROUND THE WORLD IN EIGHTY-TWO DAYS.

This will be of interest to those "tourists" who contemplate the "girdling of the earth!"

Start from any of the Atlantic cities to Omaha, Neb., *via* the regular trunk lines of railway—about 1,400 miles, in two days and two hours.

From Omaha to San Francisco, Cal., via Union and Central Pacific railroads—1,914 miles, in four days and six hours.

From San Francisco to Yokohama, Japan, by Pacific Mail line of steamers—4,700 miles, in twenty-two days.

From Yokohama to Hong Kong, China, by Pacific Mail or Peninsular and Oriental steamers—1,600 miles, in six days.

From Hong Kong to Calcutta, India, by Peninsular and Oriental steamers—3,500 miles, in fourteen days.

From Calcutta to Bombay, India, by the East Indian and Great Indian Peninsular railways—1,450 miles, in three days.

From Bombay to Suez, Egypt, by Peninsular and Oriental steamers—3,600 miles, in fourteen days.

From Suez to Alexandria, Egypt, by rail—225 miles, in ten hours.

From Alexandria to Brindisi, Italy, by Peninsular and Oriental steamers—850 miles, in three days.

From Brindisi to London, England, by rail, *via* Paris or the Rhine—1,200 miles, in three days.

From London to Liverpool, England, by railway—200 miles, in six hours.

From Liverpool to the Atlantic cities, America, by either of the great Atlantic steamship lines—3,000 miles, in ten days.

Total distance, 23,639 miles. Time, eighty-two days. Fare, about $1,100; with $4 per day for meals and incidentals, the total cost of the trip, $1,500.

THEORY OF AUCTIONS.

One of the most convenient modes of offering property for sale is correctly indicated by the name "Auction," which means an arrangement for increasing the price by exciting competition amongst purchasers. In the Dutch Auction of the "Cheap Jack," the usual mode of proceeding is reversed, the property being offered at a higher price than that which the seller is willing to accept, and gradually lowered till a purchaser is found. "Cheap John" auctions are extensively in vogue in the larger cities of this country, in which "cappers" and other shady characters are employed to bid upon articles and entrap unwary persons into extravagant purchases. These institutions have become public nuisances, and many of them are little better than "fences" for stolen goods. Thus far not much has been accomplished in the way of their suppression. In legitimate auctions "Conditions of Sale" are usually published, which constitute the terms on which the seller offers his property, and form an integral part of the contract between seller and purchaser. The contract is completed by the offer or bid on the part of the purchaser, and the acceptance by the seller or his representative, which is formally declared by the fall of the auctioneer's or salesman's hammer, and in former times by the running of a sandglass, the burning of an inch of candle (hence the term "sale by the candle"), or any other means which may have been specified in the conditions of sale. Mere advertisement does not make a contract. These conditions or articles ought further to narrate honestly and fully the character of the object or the nature of the right to be transferred, to regulate the manner of bidding, prescribe the order in which offerers are to be preferred, and to name a person who shall be empowered to determine disputes between bidders, and in cases of doubt to declare which is the purchaser.

CURIOUS BY-PRODUCTS OF COAL.

There are a good many products from coal, of which the majority of people know nothing. Their number will go into the thousands, and research into this particular branch of inorganic chemistry is bringing new and rich rewards to scientists each year. One of the hydrocarbons distinctly produced from coal tar is benzole. This is the base of magenta red and blue coloring matters and of the oil of bitter almonds. This oil formerly came entirely from the vegetable product from which it takes its name, but now it is to a large extent made from benzole, and a chemically pure product is secured. The vegetable oil of bitter almonds contains a certain amount of prussic acid, which is a poisonous substance. Toluene, or tolulo, is another product from coal tar, which is the base of a great many chemicals. Benzoic acid, which used to be made almost entirely from plants, is now readily made from toluene. Carbolic acid is another product of tolulo. The latter is a colorless fluid with a smell very much like crude petroleum, while carbolic acid and salicylic acid, two of its products, are far from being sweet-smelling compounds. Yet this same tolulo is the basis of a number of very fragrant products. Wintergreen oil, much purer than from the plant, and generally preferred by confectioners and others who use it, is one; oil of cinnamon, cinnamic acid, and oil of cloves are among the middle products which are in great demand. As yet the products of coal tar have not been made use of for medicines to any great extent, except as disinfectants, but, from experiments now going on, it is hoped to produce pure quinine from

chinolene, one of the coal tar products, and scientists say that it is only a question of time when all alkaloids known, and probably others not now known, will be made from coal tar. It would take a good-sized book to even begin to give an idea of the commercial products alone of coal tar. Nearly every known color, except cochineal red and indigo blue, is made, and the latter was produced after nine years of experiment by the eminent German scientist, Byer of Munich, but the manufacture was so expensive that it has never been done except for scientific purposes. The logwood and madder dyes of our grandmothers' days are rarely seen in the market now, owing to the cheapness with hich they are manufactured. Red ink, which formerly was made almost exclusively from carmine, is now made from eosine, one of the numerous coal-tar progeny.

COAL PRODUCTION OF THE UNITED STATES.

Compiled from the Report of the Eleventh Census, covering product of 1889. Weight expressed in short tons of 2,000 pounds:

STATES	TONS	STATES.	TONS.	STATES.	TONS.
Alabama	3,378,484	Kentucky	2,399,755	Tennessee	1,925,689
Arkansas	279,584	Maryland	2,939,715	Texas	128 216
California and Oregon	186,179	Michigan	67,431	Utah	236,601
Colorado	2,360,536	Missouri	2,567,823	Virginia:	
Georgia and North Carolina	226,156	Montana	363,301	Anthracite	2,817
Illinois	12,104,272	Nebraska and Dakotas	30,307	Bituminous	865,786
Indiana	2,845,057	New Mexico	486,963	Washington	993,724
Indian Territory	732 832	Ohio	9,976,787	West Virginia	6.231.880
Iowa	4,061,704	Pennsylvania:		Wyoming	1,388 947
Kansas	2,230,768	Anthracite	45 544,970		
		Bituminous	36,174,089		

Total product, 1889, short tons, 140,730,288, equivalent to 125,652,056 long tons of 2,240 pounds.

THE WORLD'S COAL-FIELDS.

AREA IN SQUARE MILES.—China and Japan, 200,000; United States, 194,000; India, 35,000; Russia, 27,000; Great Britain, 9,000; Germany, 3,600; France, 1,800; Belgium, Spain, and other countries, 1,400. Total, 471,800.

The coal-fields of China, Japan, Great Britain, Germany, Russia, and India contain apparently 303,000,000,000 tons, which is enough for seven hundred years at present rate of consumption. If to the above be added the coal-fields in the United States, Canada, and other countries, the supply will be found ample for one thousand years. Improved machinery has greatly increased the yield per miner, and thus produced a fall in price to the advantage of all industries.

THE WORLD'S FINEST HARBORS.

San Francisco may fairly claim to have the most capacious natural harbor of any of the world's great trading marts. It is also one of the very safest. It is entered through the Golden Gate, a passage a mile wide and thirty-five feet deep at low tide—admitting the largest ships afloat without danger of grounding. The landlocked bay of which this harbor is part is fifty miles long, and averages five miles in width. There all the shipping of the entire globe could anchor in perfect safety. Port

Philip bay, the chief harbor of Victoria, Australia, is larger than the bay of San Francisco, being about thirty-eight miles long by thirty-three broad, but its very breadth, with its surroundings, leaves it exposed to storms from certain quarters. Port Jackson, on which Sydney, New South Wales, Australia, is located, is a magnificent harbor, completely landlocked, extending inland in some places fully twenty miles, and having ample depth of water for vessels of the heaviest burden. The harbors of New York City, Rio Janeiro, Brazil, and Havana, Cuba, are capacious and secure. Next come those of Boston, Norfolk, Va., Portland, Me., Halifax, N.S., Copenhagen, Constantinople, Hong Kong, Yokohama and Nagasaki. The great ports situated on the banks of rivers, such as London, Liverpool, Glasgow, Lisbon, Philadelphia, New Orleans, Quebec, Shanghai, Canton, Calcutta, etc., are not included in the definition of harbors as here considered.

CONDENSED POSTAL INFORMATION.

LOCAL, or DROP LETTERS, two cents for each ounce at all letter carrier offices, and at other offices 1 cent.

LETTERS to any part of the United States or the Dominion of Canada, 2 cents for each ounce or fraction thereof.

LETTERS to Great Britain or Ireland, or the Continent of Europe, 5 cents for each half ounce.

LETTERS may be registered by paying a charge of 10 cents.

POSTAL CARDS costing one cent each can be sent to any part of the United States or Canada. They may be sent to Newfoundland, Great Britain and Ireland by adding a 1 cent stamp.

PRINTED MATTER: 1. Printed Books, Periodicals, Transient Newspapers and other matter wholly in print, in unsealed envelopes 1 cent for each two ounces or fraction thereof.

2. Printed circulars may bear the date, address and signature at this rate.

3. Reproductions by electric pen, Hektograph, and similar processes, same as Printed Matter.

ARTICLES OF MERCHANDISE, SEEDS, CUTTINGS, ROOTS, and other mailable matter 1 cent for each ounce or fraction thereof.

ALL PACKAGES of mail matter not charged with letter postage must be arranged so the same can be conveniently examined by postmasters. If not so arranged, letter postage will be charged.

ARTICLES OF MERCHANDISE may be registered at the rate of 10 cents a package, subject to proper examination before registration. The name and the address of sender must be indorsed in writing, or in print, on each package offered for registration.

ANY PACKAGE may have the name and address of the sender, with the word "from" prefixed on the wrapper, and the number and names of the articles may be added in brief form.

POSTAL NOTE, payable to bearer at any money order office designed by the purchaser of the note, must be for an amount under five dollars, and will cost three cents.

MONEY ORDERS: The fee for a money order amounting to $10 is 8 cents; $10 to $15, 10 cents; $15 to $30, 15 cents; $30 to $40, 20 cents; $40 to $50, 25 cents; $50 to $60, 30 cents; $60 to $70, 35 cents; $70 to $80 dollars, 40 cents; $80 to $100, 45 cents.

HANDICRAFT AND INVENTION.

Toiling—rejoicing—sorrowing,
Onward through life he goes;
Each morning sees some task begun,
Each evening sees it close;
Something attempted, something done,
Has earned a night's repose!
—LONGFELLOW.

TRIUMPHS OF SKILL AND GENIUS.

Telescopes were invented in 1590.

The first steel pen was made in 1830.

The telephone was invented in 1861.

The Chinese invented paper, 170 B. C.

Ben Franklin used the first lightning rods in 1752.

The phonograph was invented by T. A. Edison in 1877.

Stained glass windows were used in the eighth century.

The first illumination with gas was in Cornwall, Eng., in 1792.

Spectacles were invented by an Italian in the thirteenth century.

St. Peter's church at Rome was begun in 1415, and opened in 1626.

Daguerre and Nieper invented the process of daguerreotype in 1839.

The first illumination by gas in the United States was at Boston in 1822.

The first complete sewing machine was patented by Elias Howe, Jr., in 1846.

The first electric telegraph, Paddington to Brayton, Eng., was put into operation in 1835.

The first musical notes were used in 1338; they were first printed in the fifteenth century.

Umbrellas were not seen in England until 1768, when Gen. Washington was thirty-six years old.

A minister in England made $50,000 by inventing an odd toy that danced by winding it with a string.

The great wall of China, built 200 B. C., is 1,250 miles in length, 20 feet high, and 25 feet thick at the base.

Glass mirrors were first made by Venetians in the thirteenth century. Polished metal was used before that time.

It appears that on the Santee river, in South Carolina, they were manufacturing cotton by machinery in 1790.

The different shot towers in this country, such as that in Philadelphia, were put up as early as 1808 to the height of 180 feet.

Printing was known in China in the sixth century. It was introduced into England about 1474, and into America in 1536.

Pins date to 1543 in France, and were made in England in 1626. Before that time they used thorns and clasps in place of pins.

Burnt brick are known to have been used in building the Tower of Babel. They were introduced into England by the Romans.

The man who invented the return ball, an ordinary wooden ball with a rubber string attached to pull it back, made $1,000,000 from it.

The first cigar-ship was a steam pleasure yacht built in the shape of a cigar from the design of Mr. Ross Winans. It was launched on the Thames in 1886.

The longest fence in the world is in Australia—one thousand two hundred and thirty-six miles. It is made of wire netting, and its object is to keep out rabbits.

The longest span of wire in the world is used for a telegraph in India over the river Ristuah. Its length is over six thousand feet, and it is stretched between two hills twelve hundred feet high.

As large a sum as was ever obtained for any invention was enjoyed by the Yankee who invented the inverted glass bell to hang over gas jets to protect ceilings from being blackened by smoke.

Every one has seen the metal plates that are used to protect the heels and soles of rough shoes, but every one doesn't know that within ten years the man who hit upon the idea has made $250,000.

The common needle threader, which every one has seen for sale, and which every woman owns, was a boon to needle users. The man who invented it has an income of $10,000 a year from his invention.

The Great Wall of China was completed B. C. 214 by Chi-Hwang-Ti of the Tsin dynasty. Every third man of the whole empire was employed on the work, and half a million of them died of starvation.

The screw propeller of the steamship "Umbria," is twenty-four and one-half feet in diameter, and weighs thirty-nine tons. Its four blades are made of manganese bronze, and the metal in them cost over $16,000.

The use of granite and flint broken to pieces one or two ounces in weight to form roads, was recommended by John Macadam, a Scotchman, in 1819; the plan was adopted, and he received $50,000 from the British government, and was appointed surveyor-general of the Metropolitan roads.

Paris claims the finest theater in the world. It is of solid stone, finished with marble floors, and covers about four acres of ground. La Scala, of Milan, has the largest seating capacity, while the Auditorium, at Chicago, completed in 1889, seating seven thousand, ranks second in that respect.

When Catherine of Russia was on the throne, an ingenious peasant presented her with a marvelous watch, which is at present being exhibited in St. Petersburg. In size and shape it somewhat resembles a chicken's egg. When wound up to the proper pitch it plays religious chants, accompanied with scenic effects.

The Chubb lock was named after its inventor, a London locksmith. In addition to the usual tumblers, it had an extra one, which fixed the bolt immovably if one of the ordinary tumblers was lifted a little too high.

The inventor of the roller skate has made $1,000,000, notwithstanding the fact that his patent had nearly expired before the value of it was ascertained in the craze for roller skating that spread over the country a few years ago.

The highest monument in the world is the Washington monument, being five hundred and fifty-five feet. The highest structure of any kind is the Eiffel Tower, Paris, finished in 1889, and nine hundred and eighty-nine feet high.

The American hunting dagger or bowie-knife was named after its inventor, Colonel Jim Bowie, who, born about 1790, fell at Fort Alamo in the Texan war (1836). Its curved, double-edged blade is ten to fifteen inches long, and above an inch wide.

They were making cannons in 1814 at the Fort Pitt works, Pittsburg, to be used by Commodore Perry on Lake Erie. It was many a year before we began to make copper and brass out there, say in 1850, after we had developed Lake Superior copper.

How old do you suppose silk is? It was spun in China two thousand six hundred and forty years before Christ, and Isaiah seems to refer to it when he says: "They that work in sirokott or fine flax, and they that weave network, shall be confounded."

Out of Sussex Co., Eng., William Penn took seven hundred of the best mechanics, millwrights, carpenters etc., and brought them to the United States. The first county he struck, at the mouth of the Delaware, he named in their honor Sussex County.

Glass paper or cloth is made by powdering glass more or less finely and sprinkling it over paper or calico still wet with a coat of thin glue; the powdered glass adheres as it dries. Glass paper is very extensively employed as a means for polishing wood-work.

It was only one hundred and six years ago that a committee was appointed in Philadelphia to inquire into the process of coloring leather as practiced in Turkey and Morocco. They paid an Armenian whom they found £100 and a gold medal to give them the information.

The largest anvil known is that used in the Woolwich Arsenal, England. It weighs sixty tons. The anvil block upon which it rests weighs one hundred and three tons. Altogether six hundred tons of iron were used in the anvil, the block and the foundation work.

The process for making Bessemer Steel was invented by Sir Henry Bessemer in 1856. It converts fused pig iron into steel by blowing air through it and clearing it of carbon, and then adding enough carbon to make steel. Another kind of Bessemer steel is made from inferior pig iron by a modified process and is termed Basic steel.

The telephone is an instrument designed to reproduce sounds at a distance by means of electricity. Professor Graham Bell's articulating telephone was produced in 1877. Communication by telephone between New York and Chicago (1,000 miles), was opened in 1893, between Paris and Marseilles (563 miles) in 1888, and between London and Paris in 1891.

The gimlet-pointed screw has produced more wealth than most silver mines, and the Connecticut man who first thought of putting copper tips on the toes of children's shoes, is as well off as if he had inherited $1,000,000, for that's the amount his idea has realized for him.

The largest bells in the world are the following, their weight being given in tons: Moscow, 216; Burmah, 117; Pekin, 53; Novgorod, 31; Notre Dame, 18; Rouen, 18; Olmutz, 18; Vienna, 18; St. Paul's, 16; Westminster, 14; Montreal, 12; Cologne, 11; Oxford, 8; St. Peter's, 8.

The Chicopee works near Springfield, Mass., started in 1829, and began to manufacture cutlery, and also cast the first American statuary, such as the gates of the Capitol at Washington, the statue of Washington in New York, and that of De Witt Clinton in Greenwood Cemetery.

French ingenuity has contrived an improved stone-cutting saw of remarkable efficiency—a circular saw having its edge set with black diamonds in the same way as the straight blades; but as the strain on the diamond is all in one direction, the setting can be made much firmer.

Umbrellas commenced to be made on a large scale in this country in 1820 by the Wrights, who are still at it, and who were four brothers, all from Oxfordshire, England. For ten years they made only one hundred umbrellas a day, and by the time of the civil war made three thousand a day.

A hot water fountain is in operation in Paris. The water that feeds the fountain passes through a coil of copper tubing three hundred feet long. By dropping a sou in a slot jets of gas are turned on and ignited. By this means the water is heated. For each sou one is entitled to eight liters. It is expected that this fountain will be of great assistance to the poor.

The catamaran is a raft formed usually of three pieces of wood lashed together, the middle piece being longer than the others, and serving as a keel; on this the rower kneels or squats, and works a paddle. These simple vessels are used by the natives of Madras to maintain communication between ships and the shore, ordinary boats being rendered unsafe by the surf.

Many things we used to have in perfection we see no more. For instance, paper collars in 1853 were being manufactured by the million. Bismarck says that as late as the war of 1870, Burnside came to camp with another American, who wore a paper collar. But celluloid has replaced paper, and linen and cotton have become so cheap that it hardly pays to wear the poor article.

Vellum is the name originally given to a fine variety of parchment, made of calfskin. Vellum is prepared from the skins of kids, lambs, and young calves. Some of the earliest printed books were done on vellum, and some of the best of the early miniature portraits were painted on a specially fine quality of vellum prepared from the skins of calves prematurely born.

The Union arch of the Washington Aqueduct is the largest in the world, being two hundred and twenty feet; twenty feet in excess of the Chester arch across the Dee in England, sixty-eight feet longer than that of the London Bridge; ninety-two feet longer than that at Neuilly on the Seine, and one hundred feet longer than that of Waterloo Bridge. The height of the Washington arch is one hundred feet.

A diamond cut at Antwerp is, with one exception, the largest in the world. It weighed 474 carats, but has lost 275 in the cutting. It will still, however, hold its place as second largest cut stone, being exceeded only by the Persian Great Mogul, which weighs 280 carats. The Koh-i-noor weighs only 102½ carats. The Antwerp diamond is about as large as a pigeon's egg, and measures .786 inches each way.

The pretty trinkets called Bog Oak Ornaments are turned or carved from the trunks of the black oak, which is especially suitable for the purpose, the yew, fir and other woods, which are often found, of a dark color and well preserved, in the peat bogs of Great Britain, Ireland and other countries. The trade originated in the reign of George IV. The annual value of such goods sold in Dublin has been estimated at $100,000.

In shipping the caisson is an apparatus for lifting a vessel out of the water for repairs or inspection. It is usually a hollow structure, sunk by letting water into it. There is an air chamber inside, which allows it to sink only to a certain depth. In that state it is hauled under the ship's bottom, the traps or openings are closed, the water is pumped out, and the caisson rises with the ship upon it. Pontoon is another term for the same apparatus.

One of the cleverest inventions ever passed on by the patent office is the machine for sticking common pins in the papers in which they are sold. The contrivance brings up the pins in rows, draws the paper into position, crimps it into two lines, then, at a single push, passes the pins through the paper and sets them in position. The machine almost seems to think as it works, and to examine the paper to see if it is properly folded before pushing the pins into place.

The steam engine in its present form was the invention of James Watt (1768), whose great improvement consisted in performing condensation in a separate vessel from the cylinder, and in producing both the up and down stroke of the piston by steam. The compound engine, in which the steam receives its expansion is a second and larger cylinder, was the invention of Jonathan Hornblower (1781). The marine engine of Elder (1854) is an adaptation of Hornblower's compound engine.

The Eiffel Tower is a colossal iron structure erected by Gustave Eiffel, a French engineer, on the Champs de Mars. It was completed March 31, 1889. It contains three stories, reached by a series of elevators or lifts, and the platform at the summit is 985 feet above the ground. About seventeen hundred tons of iron were employed in its construction; the cost was about $1,000,000. The London Great Tower now (1893) in process of construction will exceed the Eiffel Tower in height by 200 feet and is to be of polished steel.

The largest and grandest temple of worship in the world is St. Peter's Cathedral at Rome. It stands on the site of Nero's circus, in the northwest part of the city, and is built in form of a Latin cross. The total length of the interior is 612½ English feet; transept, 446½; height of nave, 152½ feet; diameter of cupola, 193 feet; height of dome from pavement to top of cross, 448 feet. The great bell alone without the hammer or clapper weighs 18,600 pounds, or over nine and one-fourth tons. The foundation was laid in 1450 A. D. Forty-three Popes lived and died during the time the work was in progress. It was dedicated in the year 1626, but not entirely finished until the year 1880. The cost, in round numbers, is set down at $70,000,000.

In engineering the caisson is a chest used in "laying" the foundations of the piers of bridges, quays and like structures, in deep and rapid rivers. It consists of a very strong platform of timber or metal plates, to which the sides are attached. The site of the pier being leveled by dredging or otherwise, the caisson is brought over the spot, and moored in the proper position. Two or three of the lower courses of masonry are then built upon the platform of the caisson, and the water is slowly admitted by a sluice, in order to cause the caisson to settle into its place.

The annual manufacture of looking glass in Europe is something like eighteen hundred and fifty thousand square yards. In the mirrors of today the light is reflected by a layer of silver or an amalgam of tin, but a proportion of light is lost in the process of reflection, and the image is less luminous than the original. The value of a looking glass is estimated by the thickness of the glass, because the thicker they are the stronger they must be; but, speaking scientifically, thick glasses are defective, because the outlines of the image reflected are less clearly defined.

The largest ship ever built, the Great Eastern, recently broken to pieces and sold to junk dealers, was designed and constructed by Scott Russell at Millwall on the Thames. Work on the giant vessel was commenced in May, 1854. She was successfully launched January 13, 1858. The launching alone occupied the time from November 3, 1857, until the date above given. Her total length was six hundred and ninety-two feet; breadth, eighty-three feet; total weight when launched, twelve thousand tons. Her first trip of any consequence was made to New York in 1859-60.

The problem of silent machinery has been brought a step nearer solution by the introduction in Austria of cog-wheels made of pressed rawhide, which work in conjunction with wheels of cast iron, steel and other metals. The wheels possess great strength. They do not require lubricating, and are, therefore, clean in operation. They substantially reduce the vibration of the machinery in which they are used. They can be had ready-made or in the form of rawhide disks for shaping by the purchaser. They are supported by a wooden framework, and after being cut the wheel is covered with a shellac solution.

As a process of mining and engineering Blasting is the method of loosening or shattering masses of solid fracturable matter by means of explosive compounds. It is an operation of fundamental importance for, without the agency of powerful explosives, many of the greatest undertakings of modern times would have been practically impossible. The greatest blast ever exploded was in the removal of Flood Rock at Hell Gate, in the East River, New York, when 80,166 cubic yards of rock were tunneled out and 270,717 cubic yards were blasted. The resistance offered equalled 500,000 tons of rock and 200,000 tons of water.

Solomon's Temple was dedicated in the year 1005 B. C. It was eighty cubits in length, by forty cubits in width (cubic = eighteen in.) and thirty cubits high, with a porch one hundred and twenty cubits in height. The Holy of Holies was a cube of twenty cubits each way. Two pillars of brass, eighteen cubits high and twelve cubits in circumference, named respectively *Joachim* and *Boaz*, were set up in the porch of the temple, and by some critics have been considered obelisks. Three tiers of small chambers were ranged externally to the walls of the Temple on three sides of the building, and were used for the accommodation of the priesthood.

One of the most famous roads in the world is the "Appian Way," or "The Queen of Roads." It was built by Appius Claudius Cæcus while he was censor, 313 B. C. It is the oldest and most celebrated of all the Roman roads, and with its branches connected Rome with all parts of southern Italy. It had an admirable substructure or foundation, from which all the loose soil had been carefully removed. Above this were various strata cemented with lime; and lastly came the pavement, consisting of large hard hexagonal blocks of stone, composed principally of basaltic lava, and joined together with great nicety, so as to appear one smooth mass.

The largest and costliest private mansion in the world is that belonging to Lord Bute, called Mountstuart, and situated near Rothesay. It covers nearly two acres; is built in gothic style; the walls, turrets and balconies are built of stone. The immense tower in the center of the building is one hundred and twenty feet high, with a balcony around the top. The halls are constructed entirely of marble and alabaster, and the rooms are finished in mahogany, rosewood and walnut. The fireplaces are all carved marbles of antique design. The exact cost of this fairy palace is not known, but it has never been estimated at less than $8,000,000.

In the rigging of a ship a block is an important part of the apparatus necessary for raising sails and yards, tightening ropes, etc. The block comprises both the frame or shell, and the pulley or pulleys—usually termed "sheaves"—contained within it. In nautical and mechanical language a *tackle* includes the rope as well as the block through which it works. Ships' blocks vary greatly in size, shape, power, designation, and use, but nearly every block comprises a shell or wooden exterior, a *sheave* or wheel on which the rope runs, a *pin* or axle on which the sheave turns, and a *strap* (of rope or iron) to fasten the block to any particular station.

A Sedan chair is a portable covered vehicle for carrying a single person, borne on two poles by two men. The name is derived from the town of Sedan, where this species of conveyance is said to have been invented. The Duke of Buckingham used one in the reign of James I. The proceeding gave general offence, and it was made a matter of public remark that this royal favorite used his fellow countrymen to do the work of beasts. In September 1634 Sir Sanders Duncombe got a letter patent, granting him the sole right and privilege for fourteen years to use and let for hire within London and Westminster "covered chairs" to prevent the unnecessary use of coaches; according to Evelyn he got the notion from Naples.

The Sarcophagus is any stone receptable for a dead body. The name originated in the property assigned to a species of stone, found at Assos in Troas and used in early times, of consuming the whole body, with the exception of the teeth, within the space of forty days. The oldest known sarcophagi are those of Egypt, some of which are contemporary with the pyramids. The earliest of these are of a square or oblong form, and either plain or ornamented with lotus leaves; the later are of the form of swathed mummies, and bear inscriptions. The pyramids were sepulchral tombs built to contain the sarcophagi of the kings of Egypt; the Phoenician and Persian kings were also buried in sarcophagi. The Roman sarcophagi of the earlier republican period were plain. Sarcophagi were occasionally used in the later republic, although burning had become the more general mode of disposing of the dead.

The great pyramid of Cheops is the largest structure of any kind ever erected by the hand of man. Its original dimensions at the base were 764 feet square, and its perpendicular height in the highest point 488 feet; it covers four acres, one rood, and twenty-two perches of ground and has been estimated by an eminent architect to have cost not less than $145,-200,000. Internal evidence proves that the great pyramid was begun about the year 2170 B.C., or the time of the birth of Abraham. It is estimated that about 5,000,000 tons of hewn stone were used in its construction, and the evidence points to the fact that these stones were brought a distance of nearly seven hundred miles from quarries in Arabia.

The largest locomotive ever constructed prior to 1880 was that made at the Baldwin Locomotive Works during the early part of 1879. It was turned out ready for use April 10th of that year and named Uncle Dick. Uncle Dick weighed 130,000 pounds; was sixty feet from headlight to the rear end of the tender. He is now at work on the Atchison, Topeka & Santa Fé road. During the year 1883 the same works that constructed Uncle Dick turned out several locomotives for the Northern Pacific railroad, each weighing 180,000 pounds. During the same year, as if to overshadow the Baldwin works, the Central Pacific Company caused to be built at their shops in Sacramento, Cal., what are really the largest locomotives in the world. They have eight drive-wheels each, the cylinders are nineteen inches in diameter, and the stroke three feet. These engines weigh, with the tender, as Uncle Dick's weight was given, almost 190,000 pounds. The Baldwin Works, in 1889, completed for the Northern Pacific an engine weighing, with tender, 225,000 pounds.

The soldering of glass and procelain with metals is a novel French process, and its adaptations are likely to be as numerous as they are valuable. It is also simple. The portion of the tube that is to be soldered is first covered with a thin layer of platinum, this deposit being obtained by covering the slightly heated glass, by means of a brush, with very neutral chloride of platinum, mixed with essential oil of chamomile, the latter being slowly evaporated, and, when the white and odoriferous vapors cease to be given off, the temperature is raised to a red heat; the platinum is then reduced and covers the glass tube with a layer of bright metal. On connecting the tube thus metalized and placed in a bath of sulphate of copper, to the negative pole of a battery of suitable energy, there is deposited on the platinum a ring of copper, which will be malleable and very adhesive if the operation has been properly performed. In this state the glass tube, covered with copper, can be treated like a genuine metalic tube, and be soldered to iron, copper, bronze, platinum, or any metal that can be united with tin solder.

The great Egyptian obelisk in Central Park, New York, is one of the most noted monoliths in the world. It was quarried, carved and erected about the time of Abraham, to commemorate the deeds of an ancient Pharaoh. Five hundred years later the conquering Sesostris, the bad Pharaoh of Scripture, carved on its surface the record of his famous reign. The royal cartouch (or oval) shows that the work was done under the immediate order and sanction of the king. But Sesostris (or Rameses II) reigned one hundred years before the Trojan war; so all the symbols now seen on Cleopatra's Needle were already venerable with age in the days of Priam, Hector, Helen, Agamemnon, Achilles and Ulysses. The Roman poet Horace says there were brave men before Agamemnon, but they lacked a Homer to save their names from oblivion. Sesostris,

however, was an exception. He escaped oblivion without the aid of a Homer. Homer's heroes are to be congratulated above all men on having their story sung by such a minstrel; but with this thought there always goes a little doubt as to whether there ever were such heroes and such deeds outside of Homer's imagination. The hard granite of the Egyptian monuments leaves no doubt that Sesostris lived and reigned.

DURABILITY OF DIFFERENT WOODS.

Experiments have been lately made by driving sticks, made from different woods, each two feet long and one and one-half inches square, into the ground, only one-half an inch projecting outward. It was found that in five years all those made of oak, elm, ash, fir, soft mahogany and nearly every variety of pine, were totally rotten. Larch, hard pine and teak wood were decayed on the outside only, while acacia, with the exception of being also slightly attacked on the exterior, was otherwise sound. Hard mahogany and cedar of Lebanon were in tolerably good condition; but only Virginia cedar was found as good as when put in the ground. This is of some importance to builders, showing what woods should be avoided, and what others used by preference in underground work.

The duration of wood when kept dry is very great, as beams still exist which are known to be nearly 1,100 years old. Piles driven by the Romans prior to the Christian era have been examined of late, and found to be perfectly sound after an immersion of nearly 2,000 years.

The wood of some tools will last longer than the metals, as in spades, hoes and plows. In other tools the wood is first gone, as in wagons, wheelbarrows and machines. Such wood should be painted or oiled; the paint not only looks well, but preserves the wood; petroleum oil is as good as any other.

Hardwood stumps decay in five or six years; spruce stumps decay in about the same time; hemlock stumps in eight to nine years; cedar, eight to nine years; pine stumps, never.

Cedar, oak, yellow pine and chestnut are the most durable woods in dry places.

Timber intended for posts is rendered almost proof against rot by thorough seasoning, charring and immersion in hot coal tar.

THE WORLD'S NOTED BRIDGES.

The Sublician bridge at Rome is the oldest wooden bridge in existence. It was built in the seventh century. The old London Bridge was the first stone bridge. It was built in 1176. The first cast iron bridge was erected at Coalbrookdale, Eng., in 1779. The Niagara Suspension bridge was built by Roebling, in 1852. It cost $400,000, is 245 feet above the water, 1,260 feet long. The Havre de Grace bridge over the Susquehanna is 3,271 feet long. The longest general traffic draw-bridge in the world is at Rush Street, Chicago, Ill.

The largest stone bridge on the face of the earth is that finished in May, 1885, at Lagang, China. Chinese engineers had sole control of its construction. It crosses an arm of the China Sea, is nearly six miles in length, is composed entirely of stone, and has 300 arches, each 70 feet high. It is the most colossal structure ever reared by man, yet we sneer at the "heathen Chinee." The largest truss iron bridge in the world

crosses the Frith of Tay, Scotland. It is 18,612 feet in length and composed of eighty-five spans. The Forth Bridge, across the Forth at Queensferry, was commenced 1883, and opened March 4, 1890. The river at Queensferry is about 4,000 feet wide at low water. The principal feature of this work is the extraordinary length, for a rigid structure, of the two main spans, each of which has a length of 1710 feet, made up of two cantilevers, each 680 feet long, united by a central girder 350 feet long. The two main spans are supported on the small island of Inchgarvie. The Forth Bridge has a total height above high water of 361 feet, and a clear headway above high water of 150 feet, and carries two lines of rails. The longest wooden bridge in the world is that crossing Lake Ponchartrain, near New Orleans, La. It is a trestle-work twenty-one miles in length, built of cypress piles which have been saturated with creosote oil to preserve them. The highest bridge in the United States is over Kinzina Creek, near Bradford, Pa. It was built in 1882, has a total span of 2,051 feet, and is 301 feet above the creek bed.

The oldest chain bridge in the world is said to be that at Kingtung, in China. The Menai Bridge, in Wales, was constructed by Mr. Telford, 1825; its length is 580 feet. Clifton Suspension Bridge at Bristol is 702 feet long and 245 feet above high water. The suspension bridge between New York and Brooklyn is 1,595½ feet long in the center span, and 4,355 feet altogether; its width is eighty-five feet. It is a railway, vehicular and foot bridge.

SELECTED HINTS FOR ARTISANS.

FURNITURE POLISH.—For French polishing cabinet-makers use: Pale shellac, 1 pound; mastic, 1⅜ ounces; alcohol of 90 per cent standard, 1 to 1¼ pints. Dissolve cold, with frequent stirring.

CEMENT FOR RUBBER BOOTS.—A good cement for rubber boots is made by dissolving crude rubber in bisulphuret of carbon, making the solution rather thin. Put the cement upon the patch and the boot, heat both, and put them together.

PIANO POLISH.—Take equal proportions of turpentine, linseed oil and vinegar. Mix; rub in well with a piece of flannel cloth. Then polish with a piece of chamois skin. This treatment will entirely remove the dingy appearance that age gives to fine woods

HOW TO EXPEL RATS.—Get a piece of lead pipe and use it as a funnel to introduce about 1½ ounces of sulphide of potassium into any outside holes tenanted by rats; not to be used in dwellings. To get rid of mice use tartar emetic mingled with any favorite food; they will eat, sicken and take their leave.

HAND GRENADES.—Take chloride of calcium, crude, 20 parts; common salt, 5 parts; and water, 75 parts. Mix and put in thin bottles. In case of fire, a bottle so thrown that it will break in or very near the fire will put it out. This mixture is better and cheaper than many of the high-priced grenades sold for the purpose of fire-protection.

TO TEST WATER.—The purity of water can be ascertained as follows: Fill a large bottle made of colorless glass with water; look through the water at some black object. Pour out some of the water and leave the bottle half full; cork the bottle and place it for a few hours in a warm place; shake up the water, remove the cork, and critically smell the air contained in the bottle. If it has any smell, particularly if the odor is

repulsive, the water should not be used for domestic purposes. By heating the water an odor is evolved that would not otherwise appear. Water fresh from the well is usually tasteless, even if it contains a large amount of putrescible organic matter. All water for domestic purposes should be perfectly tasteless, and remain so even after it has been warmed, since warming often develops a taste in water which is tasteless when cold.

FIREPROOF WOOD.—Soak 27.5 parts by weight of sulphate of zinc, 11 of potash, 22 of alum, and 11 of manganic oxide in luke warm water in an iron boiler, and gradually add 11 parts by weight of 60 per cent sulphuric acid. The wood to be prepared is placed upon an iron grating in an apparatus of suitable size, the separate pieces being placed at least an inch apart. The liquid is then poured into the apparatus, and the wood allowed to remain completely covered for three hours, and is then air-dried.

PROTECTING LEAD WATER PIPES.—To protect lead waterpipes from the action of water, which often affects them chemically, partially dissolving them, and injuring the pipes, as well as poisoning the water, fill the pipes with a warm and concentrated solution of sulphide of potassium or sodium; leave the solution in contact with the lead for about fifteen minutes and then blow it out. This coats the inside of the pipes with sulphite of lead, which is absolutely insoluble, and cannot be acted upon by water at all.

TO MAKE CLOTH WATERPROOF.—There have been various devices for rendering cloth waterproof without the use of India rubber. The most successful of these, no doubt, is the Stenhouse patent. This consists of the application of paraffine combined with drying oil. Paraffine was first used alone, but it was found to harden and break off from the cloth after a time. When drying oil was added, however, even in a very small quantity, it was found that the two substances, by the absorption of oxygen, became converted into a tenacious substance very like resin. To apply this the paraffine is melted with drying oil and then cast into blocks. The composition can then be applied to fabrics by rubbing them over with a block of it, either cold or gently warmed. Or the melted mixture may be applied with a brush and the cloth then passed through hot rollers in order to cover its entire substance perfectly. This application makes cloth very repellant to water, though still pervious to air.

PRESERVING WOOD.—There have been a number of processes patended for preserving wood. One of them, very generally used, consists in immersing the timber in a bath of corrosive sublimate. Another process consists in first filling the pores with a solution of chloride of calcium under pressure, and next forcing in a solution of sulphate of iron, by which an insoluble sulphate of lime is formed in the body of the wood, which is thus rendered nearly as hard as stone. Wood prepared in this way is now very largely used for railroad ties. Another process consists in impregnating the wood with a solution of chloride of zinc. Yet another way is to thoroughly impregnate the timber with oil of tar containing creosote and a crude solution of acetate of iron. The process consists in putting the wood in a cylindrical vessel, connected with a powerful air pump. The air is withdrawn, and the liquid subjected to pressure, so that as much of it as possible is forced into the pores of the wood. The processes above given not only season the timber, so that it

is not subject to dry rot, but also keep it from being injured by the weather, or being attacked by insects or worms.

TO TRANSFER ENGRAVINGS.—It is said that engravings may be transferred on to white paper as follows: Place the engraving a few seconds over the vapor of iodine. Dip a slip of white paper into a weak solution of starch, and when dry, into a weak solution of oil of vitriol. When again dry, lay the slip upon the engraving and place both for a few minutes under a press. The engraving will be reproduced in all its delicacy and finish. Lithographs and printed matter cannot be so transferred with equal success.

LUMINOUS PAINT.—This useful paint may, it is said, be made by the following simple method: Take oyster shells and clean them with warm water; put them into the fire for half an hour; at the end of that time take them out and let them cool. When quite cool pound them fine and take away any gray parts, as they are of no use. Put the powder in a crucible in alternate layers with flour and sulphur. Put on the lid and cement with sand made into a stiff paste with beer. When dry, put over the fire and bake for an hour. Wait until quite cold before opening the lid. The product ought to be white. You must separate all gray parts, as they are not luminous. Make a sifter in the following manner: Take a pot, put a piece of very fine muslin very loosely across it, tie around with a string, put the powder into the top, and rake about until only the coarse powder remains; open the pot and you will find a very small powder; mix it into a thin paint with gum water, as two thin applications are better than one thick one. This will give a paint that will remain luminous far into the night, provided it is exposed to light during the day.

MAKING BLACKBOARDS.—The following directions for this work are given by an experienced superintendent: The first care must be to make the wall surface or boards to be blacked perfectly smooth. Fill all the holes and cracks with plaster of Paris mixed with water; mix but little at a time; press in and smooth down with a case-knife. The cracks between shrunken boards may be filled in the same way. Afterward use sandpaper. The ingredients needed for slating are (1) liquid gum shellac, sometimes called shellac varnish; (2) lampblack or drop black. Gum shellac is cut in alcohol, and the liquid can be obtained of any druggist. Pour some shellac into an open dish, and stir in lampblack to make a heavy paint. With a clean brush, spread on any kind of surface but glass. Put on a little and test it. If it is glossy and the chalk slips over it, reduce the mixture with alcohol. Alcohol can be bought of any druggist. If it rubs off, let the druggist put in more gum to make the liquid thicker. One quart of the liquid and a five cent paper of lampblack are sufficient to slate all the blackboards in any country school with two coats.

HARMONY AND RELATIONS OF COLORS.

Most persons have observed that colors, when brought together, mutually set each other off to advantage, while others have altogether a different effect. This must be carefully attended to by every painter who would study beauty or elegance in the appearance of his work.

Whites will set off with any color whatever.

Reds set off best with whites, blacks or yellows.

Blues set off best with whites or yellows.

Greens set off best with blacks and whites.

Gold sets off best with blacks or browns.

In lettering or edging with gold a white ground has a delicate appearance for a time, but it soon becomes dingy.

The best grounds for gold are Saxon blue, vermilion and lake.

Following are the colors to be derived by mixing two or more pigments:

Buff	Mix together—	White, Yellow, Ochre, Red.
Chestnut	"	Red, Black, Yellow.
Chocolate	"	Raw Umber, Red, Black.
Claret	"	Red, Umber, Black.
Copper	"	Red, Yellow, Black.
Dove	"	White, Vermilion, Blue, Yellow.
Drab	"	White, Yellow, Ochre, Red, Black.
Fawn	"	White, Yellow, Red.
Flesh	"	White, Yellow, Ochre, Vermilion.
Freestone	"	Red, Black, Yellow Ochre, Vermilion.
French Gray	"	White, Prussian Blue, Lake.
Gray	"	White Lead, Black.
Gold	"	White, Stone Ochre, Red.
Green Bronze	"	Chrome Green, Black, Yellow.
Lemon	"	White, Chrome Yellow.
Limestone	"	White, Yellow Ochre, Black, Red.
Olive	"	Yellow, Blue, Black, White.
Orange	"	Yellow and Red
Peach	"	White and Vermilion.
Pearl	"	White, Black, Blue.
Purple	"	Violet, with more Red and White.
Rose	"	White, Madder Lake.
Sandstone	"	White, Yellow Ochre, Black, Red.
Snuff	"	Yellow, Vandyke Brown.
Violet	"	Red, Blue and White.

THE PHONOGRAPH.

The phonograph was discovered accidentally. Mr. T. A. Edison was at work on an apparatus for recording a telegraphic message, by having an armature (with a needle fastened in one end) of the sounder make indentations on a piece of tin foil wrapped around a cylinder. The message would thus be punctured or indented on this tin foil, then by substituting a blunt needle for the sharp one and turning the cylinder, the armature would be vibrated as the needle entered into and passed out of the indentations. While experimenting, he turned the cylinder very rapidly, and instead of a succession of "clicks," a musical sound was produced. He seized the idea, and the Edison Phonograph was the result. The perfected phonograph of today consists of a cylinder of wax, or other plastic material, which is revolved either by hand, foot power or an electric motor. This cylinder, called the *phonogram*, is used for recording the sound. This is done by a diaphragm—such as is used in a telephone—into the center of which is fastened a sharp needle, which rests upon and just touches the phonogram. When the words are spoken the diaphragm vibrates, moving this needle up and down, and a series of indentations are made in a spiral line on the phonogram, which is turning around about eighty-five times a minute. To make the phonograph *speak*, or repeat the words, another diaphragm, similar to the first or recorder, but having a blunt instead of a sharp needle, is placed at the starting point, and the phonogram made to revolve; of course, as the needle passes over the indentations it vibrates the diaphragm, and the words are reproduced—as in a telephone.

SYNOPSIS OF GREAT INVENTIONS.

INVENTION.	INVENTOR.	DATE.
Air Gun	Marin	1595
Air Pump	Otto von Guericke	654
Anastatic Printing	Baldermus	1841
Anchor	Anacharsis	594 BC
Anemometer	Wolfius	1709
Balloon	Montgolfier	1783
Barometer	Evangelista Torricelli	1643
Bellows	Anacharsis the Scythian	593 BC
Camel machine	Meuvis Neindertzoon Bakker	1688
Camera Lucida	Dr. Hooke	1635-1703
Camera Obscura	Roger Bacon	1297
Cannon	Chinese (Brass Cannon to John Owen)	About 618 BC
Chronoscope	Wheatstone	1840
Clock	First one erected in Padua	11th Century
Compass	Chinese	1115 BC
Cotton Gin	Eli Whitney	1793
Dial	Anaximander	550 BC
Diving Bell	Unknown	1509
Electric Clock	Wheatstone	1840
Electric Light	Sir Humphrey Davy	1813
Electrotype	Spencer and Jacobi	1837
Engraving	Chinese	1000 BC
Fire Arms	Unknown	1364
Fire Engine	Hautsch	1657
Gas	Van Helmont	1600-1625
Gas Meter	Clegg	1815
Geographical Maps	Anaximander	550 BC
Glass	Phœnicians	
Gunpowder	Barthold Schwarz	1320
Hydraulic Press	Joseph Bramah	1796
Hydraulic Ram	Montgolfier	1797
Kaleidoscope	David Brewster	1814
Lightning Conductor	Benjamin Franklin	1752
Lithography	Alois Senefelder	1798
Locomotive	Watt	1759
Matches	Walker	1827
Microscope	Zacharias Jansen	1590
Organ	Archimedes and Ctesibius	220- 100 BC
Phonograph	Thomas A. Edison	1877
Photography	Thomas Wedgwood	1802
Piano Forte	Bartolommeo Christofali	1714
Pneumatic Railway	Henry Pinkus	1835
Stocking Frame	William Lee	1589
Printing	Johann Gutenburg	1438
Railroad	Beaumont	1672
Ruling Machine	By a Hollander; subsequently improved by Payne, Woodmason and Brown	1782
Sewing Machine	Elias Howe	1841
Steamboat	Robert Fulton	1807
Steam Engine	James Watt	1763
Telegraph	Samuel F. B. Morse	1837
Torpedo	David Bushnell	1777
Telephone	Elisha Gray, A. Graham Bell, A. C. Dolbear and Thomas A. Edison	1877
Telescope	Hans Lippersheim, Jacob Adriansz	1608
Thermometer	Dredbel, Sanctorius	1609
Watch	Said to have been first invented at Nuremberg, 1477*	1477

* It is affirmed that Robert, King of Scotland, had a watch about 1310. Spring watches have been ascribed to Dr. Hooke, and by some to Huyghens, about 1658; the anchor escapement, by Clement, 1680; the horizontal watch by Graham, 1794; repeating watches by Barlowe in 1776.

MONEY AND FINANCE.

Mammon, the least-erected spirit that fell
From heaven; for e'en in heaven his looks and thoughts
Were always downward bent, admiring more
The riches of heaven's pavement, trodden gold,
Than aught, divine or holy, else enjoyed.
—MILTON.

FACTS AND DEFINITIONS PECUNIARY.

Gold was first discovered in California in 1848.

Exchanges originated in the commercial cities of Italy.

Money simply means "a common medium of exchange."

The first currency used in this country was the Indian wampum.

National banks were first established in the United States in 1816.

International Monetary Conferences were instituted at Paris in 1878.

The highest denomination of United States legal tender notes is $10,000.

Bills of exchange were first used by the Jews in 1160, and in England in 1307.

The term "Almighty Dollar" seems to have been first used by Washington Irving.

Collateral security is an additional and separate security for the performance of an obligation.

Seneca concluded that "money is a greater torment in the possession than it is in the pursuit."

The original English exchange at London was called the "Burse," and was opened by Queen Elizabeth in 1571.

During the complicated process of manufacturing stamps they are counted eleven times in order to guard against pilfering.

A sinking fund is a fund formed by setting aside income every year to accumulate at interest for the purpose of paying off debt.

To have your errands rightly done, says an Oriental, you must employ a messenger who is deaf, dumb and blind—and that is money.

Skins, cattle, shells, corn, pieces of cloth, mats, salt and many other commodities have at different times and places been used as "money."

The largest circulation of paper money is that of the United States, being seven hundred millions, while Russia has six hundred and seventy millions.

Money is a terrible blab, says Bulwer; she will betray the secrets of her owner, whatever he do to gag her; she will whisper of his virtues and cry aloud his vices.

Indorsement is the term generally used to denote the writing of the name of the holder on the back of a bill of exchange or promissory note, on transferring or assigning it to another.

Circular notes are bank-notes specially adapted for the use of travelers in foreign countries. Being bills personal to the bearer, they are more safe as traveling money than ordinary notes or coin.

Impartial writers say that the gold contained in the medals, vessels, chains and other objects preserved in the Vatican would make more gold coins than the whole of the present European circulation.

Pine-tree money was the name given to silver money coined at Boston, Massachusetts, in the seventeenth century (from 1652) and so called from the coins bearing the rude figure of a pine-tree on one side.

Colton advises that, to cure us of our immoderate love of money, we should reflect how many goods there are that money will not buy, and these the best; and how many evils it will not remedy, and these the worst.

Debentures are deeds charging property with the repayment of a loan with a certain amount of interest. They are also issued by customs officers, and entitle a merchant to bounty or drawback on goods exported.

Coupon is a term signifying any billet, check or other slip of paper cut off from its counterpart. It is, however, applied chiefly to a dividend or interest warrant, which is presented for payment by holders of bonds of indebtedness.

In round numbers, the weight of $1,000,000 in standard gold coin is one and three-fourths tons; standard silver coin, twenty-six and three-fourths tons; subsidiary silver coin, twenty-five tons; minor coin, five-cent nickel, one hundred tons.

An annuity is a payment generally (but not necessarily) of uniform amount falling due in each year during a given term, such as a period of years or the life of an individual; and payable, either in one sum at the end of the year, or by half yearly or other instalments.

The term Lac, or Lakh, from a Sanskrit word meaning "one hundred thousand," is generally employed in India to indicate 100,000 rupees, the nominal value of which is $48,600; but in consequence of the depreciation in the value of silver the real value is only $40,500.

The continental money consisted of bills of credit issued by Congress during the War of Independence, which were to be redeemed with Spanish milled dollars. Two hundred million dollars worth were issued, but they were never redeemed, and caused much suffering.

The financial term budget is cognate with the French *bougette*, a small bag. In Great Britain, from long usage, it is applied to that miscellaneous collection of matters which aggregate into the annual financial statement made to parliament by the chancellor of the exchequer.

Trusts are combinations of capitalists for the purpose of restricting production and increasing the price of the manufactures, etc., in which the members of the trusts are interested. Trusts were first introduced by American capitalists, and are in principle similar to syndicates, unions,

etc. The operations of trusts in the United States, where they prevail extensively, were investigated by a committee of the U. S. Senate, which issued an adverse report in 1888. Among large trusts have been the salt trust in England, and the Copper Syndicate in France.

Calculating machines were invented to perform mathematical operations by a series of toothed wheels, etc. The first was devised by Pascal, 1650. The most celebrated is that constructed by the late Mr. Babbage (1821-33), who received a sum of $75,000 from the Parliament for his invention.

The capital employed in banking in the principal countries is as follows: Great Britain, $4,020,000,000; United States, $2,655,000,000; Germany, $1,425,000,000; France, $1,025,000,000; Austria, $830,000,000; Russia, $775,000,000; Italy, $455,000,000; Australia, $425,000,000; Canada, $175,000,000.

Stock jobbing is a speculative business on the Stock Exchange. It includes all "time bargains" in which there is no transference of stock, but simply a payment of the difference by the buyer or the seller according as the price of the stock at the time appointed stands above or below the price named in the bargain.

The Clearing House is an organized system by which bankers effect, at one central establishment, the collection and interchange of their bills, checks and other obligations; the result is a great diminution of labor and of the cash balances required for settlement. There are clearing houses at all the important financial centers.

The word "boom" is frequently used of late in America and Britain and the colonies for a start or rapid development of commercial activity or speculation, as when shares go off, or prices go up "with a boom." The word is assumed to be suggested less by *boom* in the sense of noise, than by the rushing progress which often accompanies the noise.

In round numbers the total amount of life insuranee written by the different insurance companies of the world is $12,000,000,000. Of this sum $5,500,000,000 is placed in the United States. Between the years 1880 and 1890 there was $2,500,000,000 new life insurance written in this country, and but $1,000,000,000 in the whole of the British empire.

A letter of credit is a *letter* addressed to a correspondent at a distance, requesting him to pay a sum therein specified to the person named, or to hold the money at his disposal, and authorizing the correspondent to reimburse himself for such payment, either by debiting it in account between the parties, or by drawing on the first party for the amount.

In 1600 the world had in circulation £29,000,000 gold, £102,000,000 silver and no paper; in 1890 these were £840,000,000 and £801,000,000, and £771,000,000 of paper money, a total of £2,402,000,000—or nearly $12,000,000,000. This includes the money of Europe, the United States, and the colonies of Great Britain, France and Spain. No account is taken of the worthless currency of the South American states.

The employment of two metals, like gold and silver, of fixed legal relative value, is termed bi-metallism. Till 1873 this had been the custom for nearly two hundred years. One ounce of gold was then equal to fifteen and one-half ounces of silver. Up to 1873 silver was the standard of Germany, as it is still of India, China and Japan; but in 1873 gold was made the sole standard of Germany, and silver became a mere article of commerce and circulating counter, which varied in value

according to circumstances. The relative value might be one ounce of gold worth twenty ounces of silver, or any other difference; and those countries which pay in silver pay more as the relative value of silver declines. Bi-metallists in the United States and elsewhere want to restore the fixed relative value of these metals.

Currency is a term signifying originally the capacity of being current, or, as Johnson defines it, "the power of passing from hand to hand." It is applied in practice to the thing that is so current, and generally to whatever, by being current among any nation or class of persons, serves as the money with which they buy commodities or pay their debts.

The term bankrupt originated in connection with the money-changers of Italy. They sat in the market place with their money displayed on a bench (or *banco*, as it was called) before them. When one of these financial gentlemen failed his banco (or bench) was said to be broken, and he was styled a *banco-rotto*, or bankrupt. The modern bank inherits its name from the unimposing money bench (banco) of mediæval Italy.

The term bogus, meaning sham, forged, fraudulent, as *bogus currency*, *bogus transactions*, is said to be a corruption of Borghese, a swindler, who supplied the North American States with counterfeit bills, bills on fictitious banks, and sham mortgages. Some think the word a corruption of *Hocus Pocus*, and say that it refers to the German "Hocus Pocus Imperatus, wer nicht sieht ist blind." The corresponding French term is *Passe muscade.*

Tontine is a kind of life-annuity, shared by the subscribers to a loan, the annuity increasing to the survivors as the subscribers die. The plan was invented by Lorenzo Tonti, a Neapolitan banker, who settled in France about 1650. The tontine was adopted by Louis XIV. and Louis XV., and also in England, for the purpose of raising government loans. The "Tontine Lafarge," opened in 1791, brought 1,218,000 francs to the French government in December, 1888. The same idea has been incorporated into life insurance by several of the leading companies in the United States.

Insurance is a contract under which one party, called the insurer or assurer, agrees, in consideration of a sum of money called the premium, to pay a larger sum of money to another party, called the insured or assured, on the happening of a designated contingency. Insurance has sometimes been said to be akin to gambling, but it is really the converse. The gambler seeks excitement and gain by the artificial manufacture of hazardous speculations. The prudent man resorts to insurance in order to secure peace of mind and immunity from the loss which might arise from contingencies beyond his control. The gambler creates or exaggerates risks; the insurance office equalizes them.

The Bank of England was projected by a Scotchman, William Paterson and established 1694. It started with a Government loan of $6,000,000 at eight per cent, secured on taxes. The charter appointed a governor and twenty four directors to be annually elected from members of the company possessing not less than $2,000 of stock. The South Sea Bubble (1720), the Jacobite Rebellion (1745), and the failure of a number of country banks (1792) seriously affected the bank. The Bank Charter Act of 1844 limited the note circulation to $70,000,000 against a like amount lent to the Government, unless a similar value in bullion were in hand. The Act was suspended during the panics of 1847, 1857 and 1866.

Sterling signifies money of the legalized standard of coinage of Great Britain and Ireland. The term, according to one theory, is a corruption of Easterling—a person from North Germany, on the continent of Europe, and therefore from the east in geographical relation to England. The Easterlings were ingenious artisans who came to England in the reign of Henry III., to refine the siver money, and the coin they produced was called moneta Esterlingorum—the money of the Esterlings.

The Darien scheme was promulgated by William Paterson, founder of the Bank of England in 1695, for colonizing the Isthmus of Darien. Two million dollars were raised in Scotland for the purpose, and in 1698-9 three expeditions set out. The settlements were not recognized by the English Government, and surrendered to the Spaniards in March 1700. The break-up of the scheme, like the South Sea scheme, John Law's Mississippi bubble, and the failure of the Panama canal, caused a great financial panic.

The "South Sea Bubble" was a ruinous speculation which arose in England at the same time as the Mississippi Scheme in France. The South Sea Company (formed 1710) offered to take over the English national debt on consideration of 5 per cent, and to advance $37,835,000 if the company were invested with the exclusive privilege of carrying on the South Sea trade; and these terms were accepted by the House of Commons. The shares, originally 77½ per cent, rose by midsummer, 1720, to 1,000. The crash quickly followed; thousands were reduced to beggary. A parliamentary inquiry took place, disclosing fraudulent dealings, and Aislabie, chancellor of the exchequer, and others were expelled the House in 1721.

Usury now means iniquitous or illegal interest, but formerly meant interest of any kind on money lent. The Mosaic law forbade a Jew to tak usury from a fellow-countryman. Greek and Roman moralists mainly disapproved of any usury; the church fathers, the popes, the canon law absolutely forbade it; hence the Jews had a kind of monopoly of usury at the Reformation. Luther condemned interest, while Calvin allowed it. A long series of laws were passed on the understanding that usury was wrong, but admitting many exceptions, the usury laws thus doing much harm and multiplying legal fictions. The moral question is still debated, and moralists such as Ruskin wax fierce against the taking of interest. But it may broadly be said that modern civilization fully recognizes the admissibility of fair interest.

Five States—Iowa, Vermont, Michigan, Wisconsin and Illinois—have no interest-bearing debt, and there are six or seven other States whose bonded debts are mere bagatelles. Among the number are New Jersey, Nebraska, Kentucky and California. To a foreigner or any one else not familiar with the facts this would convey the impression that the Americans bear an extremely light burden of debt. Such an idea would be somewhat modified, however, by the knowledge that the Atchison, Topeka & Santa Fé pays interest on $500,000,000 or more, the annual interest charge exceeding $25,000,000—almost as much as the entire interest charge of the federal government. The southern States have a bonded indebtedness of $144,000,000 in round numbers. The total bonded indebtedness of all the States in 1890 was $224,000,000, on which the annual interest charge was $10,000,000. The total bonded debt of the States is about one-third of the national intesest-bearing debt.

The Mississippi Bubble, or the "South Sea Scheme," of France, was projected by John Law, a Scotchman. It was so called because the projector was to have the exclusive trade of Louisiana, on the banks of the Mississippi, on condition of his taking on himself the National Debt (incorporated 1717, failed 1720). The debt was two hundred and eight millions sterling. Law made himself sole creditor of the debt, and was allowed to issue ten times the amount in paper money, and to open "The Royal Bank of France," empowered to issue this paper currency. So long as a twenty-franc note was worth twenty francs, the scheme was a prodigious success, but immediately the paper money was at a discount, a run on the bank set in, and the whole scheme burst.

During the civil war (1861-1865) the immense expenditure of the United States government led to the printing of an unprecedented number of bank-notes, bonds, and currency papers of various kinds. These documents, from the color presented by them, or some of them, obtained the name of Greenbacks, a designation which came to be loosely used for all United States bank notes. The first "demand notes" were issued in August 1861; the first greenbacks proper were of date March 10, 1862. Soon forged notes and bonds were in circulation, but by degrees a large establishment was organized at Washington, under the immediate control of the Secretary to the Treasury, and the precautions used were such as almost completely to baffle forgers. The paper currency, whose value had fluctuated greatly, was declared convertible into coin on 1st January 1879, and specie payments completely resumed.

A LESSON TO BORROWERS.

Peter Cooper was one of the most successful, careful and prudent business men of his time. He was strongly opposed to the methods of many merchants who launched out into extravagant enterprises on borrowed money, for which they paid exhorbitant rates of interest. The following anecdote illustrates this point very forcibly:

Once, while talking about a project with an acquaintance, the latter said he would have to borrow the money for six months, paying interest at the rate of 3 per cent per month.

"Why do you borrow for so short a time?" Mr. Cooper asked.

"Because the brokers will not negotiate bills for longer."

"Well, if you wish," said Mr. Cooper, "I will discount your note at that rate for three years."

"Are you in earnest?" asked the would-be borrower.

"Certainly I am. I will discount your note for $10,000 for three years at that rate. Will you do it?"

"Of course I will," said the merchant.

"Very well," said Mr. Cooper; "just sign this note for $10,000, payable in three years, and give your check for $800, and the transaction will be complete."

"But where is the money for me?" asked the astonished merchant.

"You don't get any money," was the reply. "Your interest for thirty-six months at 3 per centum per month amounts to 108 per centum, or $10,800; therefore your check for $800 just makes us even."

The force of this practical illustration of the folly of paying such an exorbitant price for the use of money was such that the merchant

determined never to borrow at such ruinous rates, and he frequently used to say that nothing could have so fully convinced him as this rather humorous proposal by Mr. Cooper.

NATIONAL DEBTS OF THE WORLD.

Argentine Republic	$611,415,880	Italy	4,362,840,000
Australian Colonies	787,602,605	Japan	249,108,517
Austria-Hungary	2,322,658,340	Mexico	203,244,300
Austria	1,615,190,165	Netherlands	452,000,000
Hungary	657,468,075	Norway	37,596,079
Belgium	422,464,275	Paraguay	5,151,891
Bolivia	6,500,000	Persia	No debt.
Brazil	598,658,310	Peru	367,226,890
Canada	296,112,295	Portugal	490,493,599
Chili	80,568,887	Roumania	171,292,560
China	38,500,000	Russia	3,731,103,600
Colombia	29,163,480	Servia	62,550,000
Denmark	54,369,325	Siam	No debt.
Ecuador	13,738,490	Spain	1,299,500,000
Egypt	518,625,840	Sweden	66,412,279
France	*6,427,500,000	Switzerland	7,543,273
Germany	307,500,000	Turkey	900,000,000
German States	1,827,977,750	United States	1,549,296,126
Great Britain	3,449,730,135	Uruguay	72,205,722
Greece	91,618,340	Venezuela	20,556,260
Hawaii	1,936,500		
India, British	923,355,780	Total	35,040,265,657

* This is the estimate of Whitaker. M. Tirard, the late Prime Minister of France, has estimated that the engagements of the French Treasury, the redemption of which is obligatory at a date not later than 1960, amounts to $7,174,907,310.

GOLD AND SILVER PRODUCTION IN FIVE HUNDRED YEARS.

COUNTRIES.	GOLD.			SILVER.		
	Tons.	Value.	Ratio.	Tons.	Value.	Ratio.
Africa	740	$520,000,000	7.1	....	.....	....
Australia	1,840	1,290,000,000	17.8	....	.....	....
Austria	460	325,000,000	4.4	7,930	$305,000,000	4.1
Brazil	1,040	725,000,000	10.0	....	.....	....
Germany	....	.....	.. .	8,470	325,000,000	4.4
Mexico	....	.....	....	78,600	3,040,000,000	40.7
Peru, etc	....	.....	....	72,000	2,770,000,000	37.3
Russia	1,235	865,000,000	12.0	3,200	120,000,000	1.7
Spanish America	2,220	1,550,000,000	21.5	....	.....	....
United States	2,042	1,430,000,000	19.7	11,600	445,000,000	6.08
Other Countries	778	535,000,000	7.5	11,200	430,000,000	5.8
The World	10,355	$7,240,000,000	100.0	193,000	$7,435,000,000	100.0

The estimates in this table of gold and silver production for five hundred years (1380-1880) are made by Mulhall.

THE STANDARD SILVER DOLLAR.

The coinage of the standard silver dollar was first authorized by Act of April 2, 1792. Its weight was to be 416 grains standard silver; fineness, 892.4; which was equivalent to 371¼ grains of fine silver, with 44¾ grains of pure copper alloy. This weight was changed by act of January 18, 1837, to 412½ grains, and fineness changed to 900, thus preserving the same amount of pure silver as before. By act of February 12, 1873, the coinage was discontinued. The total number of silver dollars coined

from 1792 to 1873 was 8,045,838. The act of 1873 provided for the coinage of the "trade dollar," of weight 420 grains, and an act passed in June, 1874, ordered that all silver coins should only be "legal tender at their nominal value for amounts not exceeding $5." The effect of these acts was the "demonetization" of silver, of which so much has been said. February 28, 1878, the coinage of the standard dollar of 412½ grains was revived by act of Congress; $2,000,000 per month was ordered coined, and the coins were made legal tender for all debts, public and private. From February, 1878 to November 1, 1885, 213,257,594 of these standard dollars were coined under the above act.

GREAT FINANCIAL PANICS.

The most remarkable crises since the beginning of the present century have been as follows:

1814. England, two hundred and forty banks suspended.
1824. Manchester, failures, two millions sterling.
1831. Calcutta, failures, fifteen millions.
1837. United States, "Wild-cat" crisis, all banks closed.
1839. Bank of England saved by Bank of France. Severe also in France, where ninety-three companies failed for six millions.
1844. England. State loans to merchants. Bank of England reformed.
1847. England, failures, twenty millions, discount, thirteen per cent.
1857. United States, seven thousand two hundred houses failed for one hundred and eleven millions.
1860. London, Overend-Gurney crisis; failures exceeded one hundred millions.
1869. Black Friday in New York (Wall street,) September 24.

A "PENNY-WISE" TABLE.

The way to accumulate money is to save small sums with regularity. A small sum saved daily for fifty years will grow at the following rate:

DAILY SAVINGS.	RESULT.	DAILY SAVINGS.	RESULT.
One cent	$ 50	Sixty cents	$ 57,024
Ten cents	9,504	Seventy cents	66,528
Twenty cents	19,006	Eighty cents	76,032
Thirty cents	28,512	Ninety cents	85,537
Forty cents	38,015	One Dollar	475,208
Fifty cents	47,520		

MERCHANTS' COST AND PRICE MARKS.

All merchants use private cipher marks to note cost or selling price of goods. The cipher is usually made up from some short word or sentence of nine or ten letters, as:

C O R N E L I U S, A.
1 2 3 4 5 6 7 8 9 0.

Five dollars, according to this key, would be *eaa*. But generally an extra letter is used to prevent repeating the mark for 0. If the sign for a second 0 in this case were *y*, we would have *eay* instead of *eaa*.

AVERAGE IMPORT DUTIES IN VARIOUS COUNTRIES.

	RATIO TO IMPORTS PER CENT.		RATIO TO IMPORTS PER CENT.
Great Britain	5½	Belgium	1½
France	6½	Denmark	9
Germany	6	Sweden and Norway	12
Russia	18	Europe	7¼
Austria	5	United States	28
Italy	11	Canada	15
Spain	24	Australia	13
Portugal	26	Brazil	44
Holland	1	Argentine Republic	37

THE BANKRUPT LAWS.

Properly speaking, the Bankrupt Law is a thing of the past.

Laws have been enacted, however, in nearly all the States for the purpose of distributing the property of an insolvent debtor proportionately among his creditors and discharging the debtor from further liability. Proceedings may be instituted by the debtor himself or by a creditor. As a rule, proceedings in one State are not binding on a creditor residing in another State; but if Congress were to pass a national bankrupt law, this would annul all State laws on the subject, and proceedings under the national law would bind creditors in all the States and Territories.

Insolvency proceedings are generally commenced by a petition to the Judges of the court of insolvency, setting forth among other things the debtor's inability to pay all his debts in full, and his desire to surrender all his property for the benefit of his creditors.

If satisfied of the truth of matters alleged in the petition, the judge issues an order commanding the proper officer to take the debtor's property and hold it until a certain time, when the creditors meet and choose an assignee.

The assignee then takes charge of the property, turns it into money, and declares a dividend for the creditors.

Pending the proceedings, the debtor may be examined on oath for the purpose of making him disclose all matters concerning his property and the disposal thereof.

If the debtor has conformed to the insolvent law in all respects, he is entitled to a discharge from his debts, which is given him by the judge on the debtor's obtaining the requisite assent from the creditors.

In nearly all the States an insolvent debtor may, with the consent of his creditors, and in some States without such consent, assign all his property to a trustee for the benefit of his creditors, who converts it into money, dividing it *pro rata* among the creditors.

SHORT INTEREST RULES.

To find the interest on a given sum for any number of days, at any rate of interest, multiply the principal by the number of days and divide as follows:

At 3 per cent, by	120	At 9 per cent, by	40
At 4 per cent, by	90	At 10 per cent, by	36
At 5 per cent, by	72	At 12 per cent, by	30
At 6 per cent, by	60	At 15 per cent, by	24
At 7 per cent, by	52	At 20 per cent, by	18
At 8 per cent, by	45		

ABOUT TRADE DISCOUNTS.

Wholesale houses usually invoice their goods to retailers at "list" prices. List prices were once upon a time supposed to be retail prices, but of late a system of "long" list prices has come into vogue in many lines of trade—that is, the list price is made exorbitantly high, so that wholesalers can give enormous discounts. These discounts, whether large or small, are called trade discounts, and are usually deducted at a certain rate per cent from the face of invoice.

The amount of discount generally depends upon size of bill or terms of settlement, or both. Sometimes two or more discounts are allowed.

Thus 30% and 5% is expressed 30 and 5, meaning first a discount of 30% and then 5% from the remainder.

Thirty and 5 is not 35%, but 33½%. Ten, 5 and 3 off means three successive discounts.

A wholesale house allowing 10, 5 and 3 off gets more for its goods than it would at 18 off.

WONDERS OF COMPOUND INTEREST.

TIME IN WHICH MONEY DOUBLES.

Per Cent.	Simple Interest.	Compound Int.	Per Cent.	Simple Interest.	Compound Int.
2	50 years.	35 years.	5	20 years.	14 years 75 days.
2½	40 years.	28 years 26 days.	6	16 years 8 months.	11 years 327 days.
3	33 years 4 months.	23 years 164 days.	7	14 years 104 days.	10 years 89 days.
3½	28 years 208 days.	20 years 54 days.	8	12½ years.	9 years 2 days.
4	25 years.	17 years 246 days.	9	11 years 40 days.	8 years 16 days.
4½	22 years 81 days.	15 years 273 days.	10	10 years.	7 years 100 days.

DAILY SAVINGS AT COMPOUND INTEREST.

Daily Savings.	Yearly.	Ten Years.	Fifty Years.
2¾ cents	$ 10	$ 130	$ 2,900
5½ "	20	260	5,800
8¼ "	30	390	8,700
11 "	40	520	11,600
13¾ "	50	650	14,500
27½ "	100	1,300	29 000
55 "	200	2,600	58,000
$1.10	400	5,200	116,000
1.37	500	6,500	145.000
2.74	1,000	13,000	290,000

HOW COMPOUND INTERREST ACCUMULATES.

If one dollar be invested and the interest added to the principal, annually, at the rates named, we shall have the following result as the accumulation of one hundred years:

One dollar	100 years, at	1	per cent	$2.75
"	"	2	"	7.25
"	"	2½	"	11.75
"	"	3	"	19.25
"	"	3½	"	31.25
"	"	4	"	50.50
"	"	4½	"	81.50
"	"	5	"	131.50
"	"	6	"	340.00
"	"	7	"	868.00
"	"	8	"	2,203.00
"	"	9	"	5,543.00
"	"	10	"	13,809.00
"	"	12	"	34,675.00
"	"	15	"	1,174,405.00
"	"	18	"	15,145,007.00
"	"	24	"	2,551,799,404.00

TERMS OF THE STOCK BROKER.

ACCOMMODATION PAPER.—Notes or bills not representing an actual sale or trade transaction, but merely drawn to be discounted for the benefit of drawer, acceptor or indorser, or all combined.

BALANCE OF TRADE.—Difference in value between total imports and exports of a country.

BALLOONING.—To work up a stock far beyond its intrinsic worth by favorable stories or fictitious sales.

BUYING LONG.—Buying in expectation of a rise.

BREADSTUFFS.—Any kind of grain, corn or meal.

BROKER.—An agent or factor; a middleman paid by commission.

BROKERAGE.—A percentage for the purchase or sale of money and stocks.

BULL AND BEAR.—The "bull" is a stock exchange speculator who "goes long" on stocks, trusting to a rising market; while the "bear" is one who sells stock "short," which he does not possess, and who speculates for a decline. "Bulls and bears" is a colloquialism for the whole fraternity of stock speculators.

CALL.—Demand for payment of installments due on stocks.

CALL.—A privilege given to another to "call" for delivery at a time and price fixed.

CLIQUE.—A combination of operators controlling large capital in order to unduly expand or break down the market.

COLLATERALS.—Any kind of values given in pawn when money is borrowed.

CORNERS.—The buying up of a large quantity of stocks or grain to raise the price When the market is oversold, the shorts, if compelled to deliver, find themselves in a "corner."

CURBSTONE BROKERS.—Brokers or agents who are not members of any regular organization, and do business mainly on the sidewalk.

DELIVERY.—When stock or grain is brought to the buyer in exact accordance with the rules of the Exchange, it is called a good delivery. When there are irregularities, the delivery is pronounced bad, and the buyer can appeal to the Exchange.

DIFFERENCES.—The price at which a stock is bargained for and the rate or day of delivery are not usually the same, the variation being termed the difference.

FACTOR.—An agent appointed to sell goods on commission.

FACTORAGE.—Commissions allowed factors.

FLAT.—Inactive, depressed, dull. The *flat* value of bonds and stocks is the value without interest.

FLYER.—A small side operation, not employing one's whole capital.

FORCING QUOTATIONS is where brokers wish to keep up the price of a stock and to prevent its falling out of sight. This is generally accomplished by a small sale.

GUNNING a stock is to use every art to produce a break when it is known that a certain house is heavily supplied and would be unable to resist an attack.

KITE-FLYING.—Expanding one's credit beyond wholesome limits.

LAME DUCK.—Stock-brokers' slang for one unable to meet his liabilities.

LONG.—One is *long* when he carries stock or grain for a rise.

POINTER.—A theory or fact regarding the market on which one bases a speculation.

POOL.—The stock or money contributed by a clique to carry through a corner.

PRICE CURRENT.—The prevailing price of merchandise, stock or securities.

SELLING SHORT.—To "sell short" is to sell for future delivery what one has not got, in hopes that prices will fall.

WATERING a stock is the art of inflating a quantity of stock without improving its quality.

OUR BANKING SYSTEM EXPLAINED.

The present system, known as the National Bank-note System of the United States, was devised—first, to secure in the most effective way a sure market for United States bonds, whose issue was rendered imperative by the continuance of the civil war; and, second, to provide a uniform, safe and convenient monetary system for the promotion of business transactions and the development of trade and industries among the people.

The first act of the National Congress, under which the system was organized, was approved February 25, 1863. The law was extensively revised and re-enacted June 3, 1864. Previous to these dates the system of State banks universally prevailed, of which there were, in the thirty-four States then existing, 1,601, with an aggregate capital of $429,000,000. More than 10,000 different kinds of bank-notes were in use in a total circulation of about $202,000,000.

The act of 1864 provided for the establishment, in the Government Treasury Department at Washington, of a national bank bureau, with a chief officer, to be known as comptroller of the currency. Under the provisions of the law any number of persons, not less than five, might be organized into a national banking association, the capital in no case to

be less than $100,000, except that in cities containing a population of not more than 6,000 the capital should not be less than $50,000; and in cities having a population of not less than 50,000 the capital must not be less than $200,000. Not less than one-third of the capital was required to be invested in United States bonds, upon which circulating notes could be issued equal to 90 per cent of the current market value, but not exceeding 9 per cent of the par value of the bonds deposited. These were to be received at par in the United States in all payments to and from the Government, except for duties on imports, interest on the public debt, and in redemption of national currency. As early as March 3, 1865, an important additional act was passed requiring that every banking association should pay a tax of 10 per cent on the notes of any person or State bank used for circulation or paid out by them. This act virtually resulted in taxing State bank circulation out of existence.

A total issue of $300,000,000 of circulation was authorized by the act of 1864; but an act of May 12, 1870, authorized an increase of circulation to $354,000,000. Another act, that of June 20, 1874, provided that any bank by depositing with the United States Treasury in sums not less than $9,000 at a time, might withdraw a proportionate amount of the bonds on deposit as security for its circulating notes. An act passed January 14, 1875, removed all limitations as to the amount of the circulating notes of the banks, except the restrictions in the provisions in the law then existing, but required the Treasurer to retire legal tender notes to the amount of 80 per cent of the additional bank-notes issued, and to continue such retirement until there should be a reduction of the legal tender notes to the amount of $300,000,000. The provision of the law requiring a reduction of legal tender notes was repealed May 31, 1878.

The National Bank act also required that the national banks in the city of New York, and certain other "redeeming" cities, should hold in lawful money 25 per cent of their deposits and circulation as a reserve fund. Banks in other cities were required to hold a reserve of 15 per cent.

With regard to interest on loans, the national banks were allowed to charge at the rate allowed by the States in which they were located, and in case the State had fixed no rate, the banks were allowed to charge 7 per cent.

Under the national banking law, shareholders are held individually, equally and ratably liable for all the debts of the association to the extent of their amount of stock in addition to the amount invested therein. Also the law required that before declaring a dividend, the bank should carry one-tenth of their net profits of the preceding half year to a surplus fund until the same should amount to 20 per cent of the capital.

Originally the national banks realized a considerable profit from their circulating notes, but the high rate of premium commanded in the market in later years by the interest-bearing bonds of the United States, which the law requires the banks to deposit as security for their circulation, has rendered the issue of circulating notes in most localities unprofitable. Hence the banks rely chiefly on their deposits as their principal source of profit; these deposits are returned to the business public in the shape of loans properly secured, and thus the money is continually kept in circulation among the people.

COINS, WEIGHTS AND MEASURES.

I praise not those
Who in their petty dealings pilfer not,
But him whose conscience spurns at secret fraud,
When he might plunder and defy surprise.
—CUMBERLAND.

HOME AND FOREIGN STANDARDS.

A "stone" weight in England is fourteen pounds.

Counterfeiting was formerly treason under British law.

Abraham was "very rich in cattle, in silver and in gold."

Ninety coins per minute is fair working speed at the mint.

The double eagle, 516 grains, is the heaviest American coin.

A stiver was an ancient Dutch coin of about two cents value.

The so-called "coppers" of British money are now all bronze.

Five courses of brick will lay one foot in height on a chimney.

The standard gallon contains just ten pounds' weight of pure water.

The carat, which is used to weigh diamonds, is equal to 3.17 Troy grains.

Silver is only a legal tender in England to the amount of forty shillings.

The Saxons used an ell, or yard of thirty-six inches, based on the Roman foot.

The Lydians, according to Herodotus, were the first nation to use gold and silver coin.

The coins of the Cromwellian period had the inscription in English instead of Latin.

The moidore is a Portuguese gold coin, now almost extinct, worth about seven dollars.

The first gold coin struck at Rome, 207 B.C., was the aureus, of the value of about six dollars.

Modern Japanese coinage includes oblong pieces of gold and silver, as well as large oval plates.

A cord of stone, three bushels of lime and a cubic yard of sand will lay 100 cubic feet of wall.

The palm, or hand-breadth, was the original standard of measure, then the foot and cubit successively.

The so-called "Latin" Union was an agreement between France, Italy, Belgium and Switzerland (1865–80) to maintain a uniform coinage.

One thousand shingles, laid four inches to the weather, will cover 100 square feet of surface, and five pounds of shingle nails will fasten them on.

One-fifth more siding and flooring is needed than the number of square feet of surface to be covered, because of the lap in the siding and matching.

A denarius was a Roman silver coin, value about sixteen cents. It was used in France and England for ready money generally. It was also a weight (three scruples).

A cubic foot of cork weighs 1.5 lbs.; of bees, 65 lbs.; of blood, 66 lbs.; of coal, 56 lbs.; of earth, 94 lbs.; of hay, 9 lbs.; of ice, 57½ lbs.; of copper, 547 lbs.; of cast iron, 450 lbs.; of gold, 1,203½ lbs.; of platina, 1,219 lbs.

To find the quantity of shelled corn in a crib of corn in the ear, measure the length, breadth and height of the crib, inside of the crib, multiply them together and divide them by two and you have the number of bushels in the crib.

One thousand laths will cover seventy yards of surface, and eleven pounds of lath nails will nail them on. Eight bushels of good lime, sixteen bushels of sand and one bushel of hair will make enough good mortar to plaster 100 square yards.

Very large amounts of private gold coins were formerly minted in this country by individuals. Reid of Georgia, the Bechtlers of North Carolina, the Mormons in Utah, and several banking firms in California, all once did a large business in this line.

A rupee is a silver coin, the standard or unit of the money system of India; value at par, fifty cents; 100,000 rupees = a lac; 100 lacs = a crore. Owing to the falling-off in the value of silver, a rupee is at present not worth more than thirty cents in gold.

The picayune is a name derived from the Carib language, and used in Louisiana for a small coin worth six and one-fourth cents, current in the United States before 1857, and known in different states by various names (fourpence, fippence, fip, sixpence, etc.).

The name of Bezants, or Byzantines, is given to the coins, either gold or silver, of the Byzantine empire. They varied in value from five dollars to two and a half dollars. As bezants were brought to England by the crusaders, they frequently occur as English heraldic charges.

Goldsmiths and assayers divide the troy pound, ounce, or any other weight into twenty-four parts, and call each a carat, as a means of stating the proportion of pure gold contained in any alloy of gold with other metals. Thus the gold of our coinage and of wedding rings, which contains $\frac{22}{24}$ of pure gold, is called "22-carats fine," or 22-carat gold.

A guinea was an English gold coin, so called from having been originally coined of gold brought from the Guinea cost in 1663. Its value has varied at different periods. At first it equalled twenty shillings, it was in 1685 worth thirty shillings, and in 1717 twenty-one shillings, beyond which price it was by an Act of Parliament in 1811 forbidden to be sold, or exported. The issue of the sovereign (1817) virtually abolished the coinage of the guinea.

A cubit was a Roman measure of length, supposed to equal the length of the fore-arm from the elbow to the tip of the middle finger. It was 1½ Roman feet (17½ English inches). The English cubit is 1½ English feet. The cubit of Scripture is generally estimated at twenty-two inches.

It is a big job to count a trillion. Had Adam counted continuously from his creation to the present day, he would not have reached that number, for it would take him over 9,512 years. At the rate of 200 a minute, there could be counted 12,000 an hour, 288,000 a day, and 105,120,000 a year.

The scudo (Ital., "shield"), is an Italian silver coin corresponding to the Spanish piastre, the American dollar and the English crown. It was so called from its bearing the heraldic shield of the prince by whose authority it was struck, and differed slightly in value in the different states of Italy, the usual value being about one dollar.

The tael is a money of account in China, and is equivalent to a tael weight of pure silver, or to about twelve hundred and fifty of the copper coin known as "cash." The value of the Haikwan tael or customs tael is 4s. 9d., about $1.14, varying with the price of silver. In 1890 it was superseded by the new dollar, equal in value to our dollar.

Gunter's chain is a chain used for land measuring. It is twenty-two yards long, the square of which is 484. Now an acre is 4,840 square yards, and therefore a square chain is a tenth of an acre, or 10=1 acre. Again a chain contains 10,000 square links, and as 10 chains = an acre, it follows that 100,000 square links = an acre. So that, in measuring a field by a Gunter's chain, all that is required is to divide the result by 100,000, or (which is the same thing) to cut off the last five figures, to obtain the area in acres.

The real is a silver coin and money of account in Spain, Mexico and other old Spanish possessions, and is the $\frac{1}{100}$th part of the piastre, or ¼th of the *peseta*, the franc of the new Spanish decimal system, and has a value, varying with the exchange, of about five cents. The real was first coined in Spain in 1497. It is also a money of account in Portugal, being the equivalent of forty reis. In Java it is the name of a weight for gold and silver articles, corresponding to seventeen penny weights and fourteen grains troy weight.

The "foot" is named from the length of that member in a full-grown man. Some say that it was so called from the length of the foot of a certain English king, but it is believed to have been a standard of measurement among the ancient Egyptians. The cubit is from the Latin cubitus, an elbow, and is the distance from the elbow to the end of the middle finger. Fathom is from the Aryan *fat*, to extend, and denotes the distance from tip to tip of the fingers when the arms of an average-sized man are fully extended.

The decimal system is that by which weights and measures are calculated by tens and multiples of ten. The basis of this system is the *mètre* = 39.37 in.; of liquid capacity the *litre*, one-tenth of the mètre; of solid measure the *stère*, the cube of the mètre; of weight the *gramme* = one cubic centimètre of distilled water at 39.2° Fahr. The decimal system for money is used in France, where the *franc* (twenty cents) is the unit of value. The system also obtains in the United States, Italy, Spain, and other countries in Europe and elsewhere.

Counterfeiting is the making of false money. In the United States the crime of counterfeiting coin or money is punishable with fine and imprisonment at hard labor for a term of from two to ten years; and includes falsely making, forging or counterfeiting coins or notes, postal money orders, postal cards, government stamps of all kinds, and government securities, as also importing, possessing, uttering, or passing false coins or notes with fraudulent intent. Mutilating and debasing the coin is also counterfeiting, but is not so severely punished.

The talent was the heaviest unit of weight among the Greeks. The word is used by Homer to signify indifferently a balance and a definite weight of some monetary currency. Silver coin was first struck in Hellas proper in the island of Ægina, and the Æginetan standard was apparently adapted to the Babylonian gold standard. The Babylonian commercial talent seems to have been either 65 pound, 5 ounces, or 66 pound, 5½ ounces, and its value in silver from $1,700 to $2,000. Derivatives of this (containing 3,000 shekels) were in use in Phœnicia and Palestine; but there was another silver talent, and a gold talent worth ⅗ths of the commercial talent. The Euboic talent was of smaller monetary measure and weight than the Æginetan.

ALL ABOUT AN ACRE.

An acre is a measure of ground approximately adopted by most nations, which in America and England is 4,840 square yards. The chain with which land is measured is 22 yards long, and a square chain will contain 22x22, or 484 yards; so that 10 square chains make an acre. The acre is divided into 4 roods, a rood into 40 perches, and a perch contains 30¼ square yards. The old Scotch acre is larger than the English, and the Irish than the Scotch. Twenty-three Scotch acres = 29 imperial acres; 30¼ Irish acres = 49 imperial acres. The hectare of the French metric system has on the Continent superseded almost all the ancient local measures corresponding to the acre—such as the Prussian *morgen*.

English acre		1.00
Scotch	"	1.27
Irish	"	1.62
France	Hectare (=100 ares)	2.47
	Arpent (old system)	0.99
Prussia	Little Morgen	0.63
	Great Morgen	1.40
United States, English acre		1.00

CAPACITY OF A TEN-TON FREIGHT CAR.

Whisky	60 barrels.	Lumber, green	6,000 feet.
Salt	70 "	Lumber, dry	10,000 "
Lime	70 "	Barley	300 bush.
Flour	90 "	Wheat	340 "
Eggs	130 to 160 "	Apples	370 "
Flour	200 sacks.	Corn	400 "
Cattle	18 to 20 head.	Potatoes	430 "
Hogs	50 to 60 "	Oats	680 "
Sheep	80 to 100 "	Bran	1,000 "

MONEY OF THE WORLD.

Brass money is spoken of by Homer as early as 1184 B. C. Gold and silver were coined by Pheidon, of Argos, 862 B. C. Coins were made sterling in 1216. *New silver coinage* struck, 1816; Jubilee coins struck, 1887; first gold coin on record struck, 1257; sovereigns first coined, 1489;

shillings first coined, 1503; crowns and half-crowns struck, 1553; copper coined by Government, 1672; guineas, 1663; fourpenny-pieces, 1836; threepenny-pieces, 1843; silver florins, 1849; bronze coinage, 1860. In the reign of Elizabeth the amount of money coined was £5,832,000. In 1890 (Victoria) it reached a total of £9,465,129. In the United States the first coinage was made for Virginia Company, 1612; first colonial coinage, 1652 (Mass); copper coined in Vermont and Connecticut, 1785; New Jersey and Massachusetts, 1786. Decimal coinage adopted by Congress, 1786, when following coins were issued: *gold*, eagle ($10), and half-eagle; *silver*, dollar and divisions of dollar; *copper*, cent and half-cent. The appended table shows the

THE VALUE OF FOREIGN COINS.

COUNTRY.	MONETARY UNIT.	STANDARD.	VALUE IN U. S. MONEY.	STANDARD COIN.
Austria	Florin	Silver	.40,1	
Belgium	Franc	Gold and silver	.19,3	5, 10 and 20 francs.
Brazil	Milreis of 1,000 reis	Gold	.54,6	
Chili	Peso	Gold and silver	.91,2	Condor, doubloon and escudo.
Cuba	Peso	Gold and silver	.93,2	⅛, ⅙, ¼, ½ and 1 doubloon.
Denmark	Krone	Silver	.26,8	Krone=100 öre.
Egypt	Piaster	Gold	.04,9	5, 10, 25, 50 and 100 piasters.
France	Franc	Gold and silver	.19,3	5, 10 and 20 francs.
Great Britain	Pound sterling	Gold	4.86,6½	¼ sovereign and sovereign.
Greece	Drachma	Gold and silver	.19,3	5, 10, 20, 50 and 100 drachmas.
German Empire	Mark	Gold	.23,8	5, 10 and 20 marks.
Hawaiian Islands	Dollar	Gold	1.00	
India	Rupee of 16 annas	Silver	.38,6	
Italy	Lira	Gold and silver	.19,3	5, 10, 20, 50 and 100 lire.
Japan	Yen	Silver	.87,6	1, 2, 5, 10 and 20 yen, gold and silver yen.
Mexico	Dollar	Silver	.88,2	Peso or dollar, 5, 10, 25 and 60 centavo.
Netherlands	Florin	Gold and silver	.40,2	
Norway	Krone	Silver	.26,8	Krone=100 öre.
Portugal	Milreis of 1,000 reis	Gold	1.08	2, 5 and 10 milreis.
Russia	Rouble of 100 copecks	Silver	.65	¼, ½ and 1 rouble
Spain	Peseta of 100 centimes	Gold and silver	.19,3	5, 10, 20, 50 and 100 pesetas.
Sweden	Krone	Silver	.26,8	Krone=100 öre.
Switzerland	Franc	Gold and silver	.19,3	5, 10 and 20 francs.
Turkey	Piaster	Gold	.04,4	25, 50, 100, 250 and 500 piasters.

WEIGHTS OF METALS WITHOUT WEIGHING.

Wrought Iron.—Find the number of cubic inches in the piece; multiply them by .2816. The product will be in pounds.

Cast Iron.—Multiply the number of cubic inches by .2607.

Copper.—Multiply the number of cubic inches by .3242.

Lead.—Multiply the number of cubic inches by .41015.

Brass.—Multiply the number of cubic inches by .3112.

DOMESTIC WEIGHTS AND MEASURES.

One quart of wheat flour is one pound. One quart of corn meal weighs eighteen ounces. One quart of butter, soft, weights fourteen to sixteen ounces. One quart of brown sugar weighs from a pound to a pound and a quarter, according to dampness. One quart of white sugar weighs

two pounds. Ten medium sized eggs weigh one pound. A tablespoonful of salt is one ounce. Eight tablespoonfuls make a gill. Two gills or sixteen tablespoonfuls are half a pint. Sixty drops are one teaspoonful. Four tablespoonfuls are one wineglassful. Twelve tablespoonfuls are one teacupful. Sixteen tablespoonfuls, or half a pint, are one tumblerful.

THE MEANING OF MEASURES.—A square mile is equal to 640 acres. A square acre is 208.71 feet on one side. An acre is 43,560 square feet. A league, 3 miles. A span, 10⅞ inches. A hand, 4 inches. A palm, 3 inches. A great cubit, 11 inches. A fathom, 6 feet. A mile, 5,280 feet.

DOMESTIC AND DROP MEASURES APPROXIMATED—A teaspoonful, one fluid dram, 4 grams; a dessertspoonful, two fluid drams, 3 grams; a tablespoonful, half fluid ounce, 16 grams; a wineglassful, two fluid ounces, 64 grams; a tumblerful, half pint, 256 grams.

WEIGHTS AND MEASURES.

TROY WEIGHT—24 grains make 1 pennyweight, 20 pennyweights make 1 ounce. By this weight, gold, silver and jewels only are weighed. The ounce and pound in this are same as in Apothecaries' weight.

APOTHECARIES' WEIGHT—20 grains make 1 scruple, 3 scruples make 1 dram, 8 drams make 1 ounce, 12 ounces make 1 pound.

AVOIRDUPOIS WEIGHT—16 drams make 1 ounce, 16 ounces make 1 pound, 25 pounds make 1 quarter, 4 quarters make 1 hundredweight, 2000 pounds make 1 ton.

DRY MEASURE—2 pints make 1 quart, 8 quarts make 1 peck, 4 pecks make 1 bushel, 36 bushels make 1 chaldron.

LIQUID OR WINE MEASURE—4 gills make 1 pint, 2 pints make 1 quart, 4 quarts make 1 gallon, 31½ gallons make 1 barrel, 2 barrels make 1 hogshead.

TIME MEASURE—60 seconds make 1 minute, 60 minutes make 1 hour, 24 hours make 1 day, 7 days make 1 week, 4 weeks make 1 lunar month, 28,,29, 30 or 31 days make 1 calendar month (30 days make 1 month in computing interest,) 52 weeks and 1 day, or 12 calendar months make 1 year; 365 days, 5 hours, 48 minutes and 49 seconds make 1 solar year.

CIRCULAR MEASURE—60 seconds make 1 minute, 60 minutes make 1 degree, 30 degrees make 1 sign, 90 degrees make 1 quadrant, 4 quadrants or 360 degrees make 1 circle.

LONG MEASURE—DISTANCE—3 barleycorns 1 inch, 12 inches 1 foot, 3 feet 1 yard, 5½ yards 1 rod, 40 rods 1 furlong, 8 furlongs 1 mile.

CLOTH MEASURE—2¼ inches 1 nail, 4 nails 1 quarter, 4 quarters 1 yard.

MISCELLANEOUS—3 inches 1 palm, 4 inches 1 hand, 6 inches 1 span, 18 inches 1 cubit, 21.8 inches 1 Bible cubit, 2½ feet, 1 military pace.

SQUARE MEASURE—144 square inches 1 square foot, 9 square feet 1 square yard, 30¼ square yards 1 square rod, 40 square rods, 1 rood, 4 roods 1 acre.

SURVEYOR'S MEASURE—7.92 inches 1 link, 25 links 1 rod, 4 rods 1 chain, 10 square chains or 160 square rods 1 acre, 640 acres 1 square mile.

CUBIC MEASURE—1,728 cubic inches 1 cubic foot, 27 cubic feet 1 cubic yard, 128 cubic feet 1 cord (wood) 40 cubic feet 1 ton (shipping), 2,150.42 cubic inches 1 standard bushel, 268.8 cubic inches 1 standard gallon, 1 cubic foot four fifths of a bushel.

METRIC WEIGHTS—10 milligrams 1 centigram, 10 centigrams 1 decigram, 10 decigrams 1 gram, 10 grams 1 dekagram, 10 dekagrams 1 hektogram, 10 hektograms 1 kilogram.

METRIC MEASURES—(One milliliter—Cubic centimeter.) —10 milliliters 1 centiliter. 10 centiliters 1 deciliter, 10 deciliters 1 liter, 10 liters 1 dekaliter, 10 dekaliters 1 hektoliter, 10 hektoliters 1 kiloliter.

METRIC LENGTHS—10 millimeters 1 centimeter, 10 centimeters 1 decimeter, 10 decimeters 1 meter, 10 meters 1 dekameter, 10 dekameters 1 hektometer, 10 hektometers 1 kilometer.

RATIO OF APOTHECARIES' AND IMPERIAL MEASURE.

Apothecaries.	Imperial.					
1 gallon equals.....	6 pints,	13	ounces,	2	drams,	23 minims.
1 pint "		16	"	5	"	18 "
1 fluid ounce equals.....		1	"	0	"	20 "
1 fluid dram "				1	"	2½ "

HANDY METRIC TABLES.

The following tables give the equivalents of both the metric and common systems, and will be found convenient for reference:

	Approximate Equivalent.	Accurate Equivalent.
1 inch [length]	2½ cubic centimeters	2.539
1 centimeter	0.4 inch	0.393
1 yard	1 meter	0.914
1 meter (39.37 inches)	1 yard	1.093
1 foot	30 centimeters	30.479
1 kilometer (1,000 meters)	⅝ mile	0.621
1 mile	1½ kilometers	1.600
1 gramme [weight]	15½ grains	15.432
1 grain	0.064 gramme	0.064
1 kilogramme (1,000 grammes)	2.2 pounds avoirdupois	2.204
1 pound avoirdupois	½ kilogramme	0.453
1 ounce avoirdupois (437½ grains)	28½ grammes	28.349
1 ounce troy, or apothecary (480 grains)	31 grammes	31.103
1 cubic centimeter [bulk]	1.06 cubic inch	0.060
1 cubic inch	16½ cubic centimeters	16.386
1 liter (1,000 cubic centimeters)	1 United States standard quart	0.946
1 United States quart	1 liter	1.057
1 fluid ounce	29½ cubic centimeters	29.570
1 hectare (10,000 square meters) [surface]	2½ acres	2.471
1 acre	0.4 hectare	0.40

It may not be generally known that we have in the nickel five-cent piece of our coinage a key to the tables of linear measures and weights. The diameter of this coin is two centimeters, and its weight is five grammes. Five of them placed in a row will, of course, give the length of the decimeter; and two of them will weigh a decagram. As the kiloliter is a cubic meter, the key to the measure of length is also the key to the measure of capacity. Any person, therefore, who is fortunate enough to own a five-cent nickle, may carry in his pocket the entire metric system of weights and measures.

SUNDRY WEIGHTS AND MEASURES.

To find the number of bushels of apples, potatoes, etc., in a bin, multiply the length, breadth and thickness together; then multiply by eight and point off one figure in the answer for decimals.

Three and one-half barrels of lime will do one hundred yards of plastering, two coats. Two barrels will do one coat. One barrel will lay one thousand bricks. To every barrel of lime estimate about five-eighths yards of good sand for plastering and brick work.

Wheat from the time it is threshed will shrink two quarts to the bushel, or six per cent in six months. One hundred bushels of corn husked in November will shrink to eighty by March. Potatoes will rot and shrink thirty-three per cent of value from October to June.

Shekel (Heb., from *shakal*, "to weigh"), was originally a certain standard weight in use among the ancient Hebrews, by which the value of metals, metal vessels and other things was fixed. Gradually it became a normal piece of money, both in gold and silver, marked in some way or other as a coin, although not stamped. The gifts to the sanctuary, the fines, the taxes, the prices of merchandise are all reckoned in the Old Testament by the shekel, not counted, but weighed.

Troy-weight seems to have taken its name from a weight used at the fair of *Troyes*, an important center of commerce during the middle ages. Like Cologne, Toulouse and other towns, Troyes may have had its own

special system of weights. A troy pound (of what value is unknown) is first mentioned in Britain in 1414, long before which period the standard pound of twelve ounces, as well as another pound of twelve ounces (the Tower pound), was in use. The term "troy" was first applied to the standard pound in 1495, but at the same time no change seems to have been made in its value, and it continued, as before, to be exclusively employed by the dealers in the precious metals, gems and drugs. The troy pound contains twelve ounces, each ounce twenty pennyweights, and each pennyweight twenty-four grains; thus the pound contains 5,760 grains, and is to the avoirdupois pound as 144 to 175, while the troy ounce is to the avoirdupois ounce as 192 to 175. (The apothecaries' ounce and pound are now practically obsolete; drugs are bought and sold by avoirdupois, though compounded by apothecaries' weight.) The old English pound, to which the term troy was afterwards applied, was doubtless the pound of silver; and the Tower pound of twelve ounces differed from it only by three-fourths of an ounce.

THE AREA OF A CIRCLE.

Of all plane figures the circle is the most capacious, or has the greatest area within the same limits. It is geometrically demonstrable that it has the same area as a right-angled triangle with a base equal to its circumference, and a perpendicular equal to its radius, that is, half the product of the radius and circumference. It is obviously larger than any figure, of however many sides, inscribed within its perimeter, and smaller than any circumscribed polygon. As a result of laborious calculations on this basis (pushed in one instance to 600 places of decimals without reaching the end), it has been ascertained that the ratio of the diameter to the circumference of any circle (sufficiently exact for all practical purposes), is as 1 : 3.1416 (3.141592653+) or in whole numbers, approximately, as 7 : 22, or more nearly as 113 : 355. Hence, to find the circumference or diameter, the other quantity being known, multiply or divide by 3.1416; and to find the area, multiply half the diameter by half the circumference, or the square of the diameter by .7854 (3.1416÷4).

TO FIND THE SURFACE OF A GLOBE, multiply the square of the diameter by 3.1416.

TO FIND THE SOLIDITY OF A GLOBE, multiply the cube of the diameter by .5236.

COAL WEIGHED BY MEASURE.

There is a difference between a ton of hard coal and one of soft coal. For that matter, coal from different mines whether hard or soft, differs in weight, and consequently in cubic measure, according to quality. Then there is a difference according to size. To illustrate: careful measurements have been made of Wilkesbarre anthracite, a fine quality of hard coal, with the following results:

Size of coal.	Cubic feet in ton of 2,240 lbs.	Cubic feet in ton of 2,000 lbs.
Lump	33.3	29.8
Broken	33.9	30.3
Egg	34.5	30.8
Stone	34.8	31.1
Chestnut	35.7	31.9
Pea	36.7	32.8

For soft coal the following measures may be taken as nearly correct; it is simply impossible to determine any exact rule, even for bituminous

coal of the same district: Briar Hill coal, 44.8 cubic feet per ton of 2,240 pounds; Pittsburgh, 47.8; Wilmington, Ill., 47; Indiana block coal, 42 to 43 cubic feet.

MEASURE OF EARTH, ETC.

One ton of soil = 18 feet cube.
45 cubic feet of soil = 2½ tons.
A cubic foot contains 6 gallons and 1 quart of water, weighing 62½ lbs.

15½	cubic feet of	chalk	weighs		1 ton.
18	" "	clay	"		1 "
21	" "	earth	"		1 "
19	" "	gravel	"		1 "
21	" "	sand	"		1 "

TRADE SIZES OF BOOKS.

The name indicates the number of pages in the sheet, thus: in folio book, 4 pages or 2 leaves = 1 sheet; a quarto. or 4to., has 8 pages or 4 leaves to a sheet; an octavo, or 8vo., 16 pages or 8 leaves to a sheet. In a 12mo., 24 pages or 12 leaves = 1 sheet, and the 18mo., 36 pages, or 18 leaves = 1 sheet, and so on. The following are the approximate sizes of books:

Royal Folio	19 inches	×	12
Demy	18 "	×	11
Super Imp. Quarto (4to)	15½ "	×	13
Royal 4to	12½ "	×	10
Demy 4to	11½ "	×	8½
Crown 4to	11 "	×	8
Royal Octavo	10½ "	×	6½
Medium 8vo	9½ "	×	6
Demy 8vo	9 "	×	5½
Crown 8vo	7½ "	×	4½
Foolscap 8vo	7 "	×	4
12mo	7 "	×	4
16mo	6½ "	×	4
Square 16mo	4½ "	×	3½
Royal 24mo	5¼ "	×	3¾
Demy 24mo	5 "	×	2¾
Royal 32mo	5 "	×	3
Post 32mo	4 "	×	2½
Demy 48mo	3¾ "	×	2¼

VALUE OF DIAMONDS,

Diamonds averaging one-half carat each, $60 per carat.
Diamonds averaging three-quarters carat each, $80 per carat.
Diamonds averaging one carat each, $100 per carat.
Diamonds averaging one and one-quarter carats each, $110 per carat.
Diamonds averaging one and one-half carats each, $120 per carat.
Diamonds averaging one and three-quarters carats each, $145 per carat.
Diamonds averaging two carats each, $175 per carat.

In other words, the value of the gem increases in the geometrical ratio of its weight. Four diamonds weighing together two carats are worth $120; but one diamond weighing just as much is worth $350. Stones weighing over two carats are about the same price per carat as two-carat stones; they should be dearer, but they are not, simply because the demand for them is limited. If the demand for diamonds were as imperative as the demand for flour or beef, the geometrical ratio would again come into play, and five-carat stones would be valued in the thousands.

VALUABLE CALCULATIONS.

To MEASURE BULK WOOD.—To measure a pile of wood, multiply the length by the width, and that product by the height, which will give the number of cubic feet. Divide that product by 128, and the quotient will be the number of cords. A standard cord of wood, it must be re-

membered, is four feet thick; that is, the wood must be four feet long. Farmers usually go by surface measure, calling a pile of stove wood eight feet long and four feet high a cord. Under such circumstances thirty-two feet would be the divisor.

GRAIN MEASURE—To find the capacity of a bin or wagon-bed, multiply the cubic feet by .8 (tenths). For great accuracy add one-third of a bushel for every 100 cubic feet. To find the cubic feet, multiply the length, width and depth together.

LAND MEASURE—To find the number of acres in a body of land, multiply the length by the width (in rods), and divide the product by 160. When the opposite sides are unequal, add them, and take half the sum for the mean length or width.

CISTERN MEASURE—To find the capacity of a round cistern or tank, multiply the square of the average diameter by the depth, and take three-sixteenths of the product. For great accuracy, multiply by .1865. For square cisterns or tanks, multiply the cubic feet by .2$\frac{3}{16}$. The result is the contents in barrels.

TO MEASURE CASKS OR BARRELS—Find mean diameter by adding to head diameter two-thirds (if staves are but slightly curved, three-fifths) of difference between head and bung diameters, and dividing by two. Multiply square of mean diameter in inches by .7854, and the product by the height of the cask in inches. The result will be the number of cubic inches. Divide by 231 for standard or wine gallons and by 282 for beer gallons.

TO ASCERTAIN THE WEIGHT OF CATTLE—Measure the girt close behind the shoulder, and the length from the forepart of the shoulder-blade along the back to the bone at the tail, which is in a vertical line with the buttock, both in feet. Multiply the square of the girt, expressed in feet by ten times the length, and divide the product by three; the quotient is the weight, nearly, of the fore quarters, in pounds avoirdupois. It is to be observed, however, that in very fat cattle, the fore quarters will be about one-twentieth more, while in those in a very lean state they will be one-twentieth less than the weight obtained by the rule.

MEASURES OF CAPACITY—The following table, showing contents of boxes, will often be found convenient, taking inside dimensions:

24 in. x 24 in. x 14.7 will contain a barrel of 31½ gallons.
15 in. x 14 in. x 11 in. will contain 10 gallons.
8¼ in x 7 in. x 4 in. will contain a gallon.
4 in. x 4 in x 3.6 in. will contain a quart.
24 in. x 28 in. x 16 in. will contain 5 bushels.
16 in. x 12 in. x 11.2 in. will contain a bushel.
12 in. x 11.2 in. x 8 in. will contain a half bushel.
7 in. x 6.4 in. x 12 in. will contain a peck.
8.4 in. x 8 in. x 4 in. will contain a half peck, or 4 dry quarts.
6 in. x 5$\frac{1}{8}$ in., and 4 in. deep, will contain a half gallon.
4 in. x 4 in., and 2$\frac{1}{16}$ in. deep, will contain a pint.

HOW TO MEASURE A TREE.—Very many persons, when looking for a stick of timber, are at a loss to estimate either the height of the tree or the length of timber it will cut. The following rule will enable any one to approximate nearly to the length from the ground to any position desired on the tree: Take a stake, say six feet in length, and place it against the tree you wish to measure. Then step back some rods, twenty or more if you can, from which to do the measuring. At this point a light pole and a measuring rule are required. The pole is raised between the eyes and the tree, and the rule is brought into position against the

pole. Then by sighting and observing what length of the rule is required to cover the stake of the tree, and what the entire tree, dividing the latter length by the former and multiplying by the number of feet the stake is long, you reach the approximate height of the tree. For example, if the stake at the tree be six feet above ground and one inch on your rule corresponds exactly with this, and if then the entire height of the tree corresponds exactly with say nine inches on the rule, this would show the tree to possess a full height of fifty-four feet. In practice it will thus be found an easy matter to learn the approximate height of any tree, building, or other such object.

RULES FOR MEASURING CORN IN CRIB, VEGETABLES, ETC., AND HAY IN MOW—This rule will apply to a crib of any size or kind. Two cubic feet of good, sound, dry corn in the ear will make a bushel of shelled corn; to get, then, the quantity of shelled corn in a crib of corn in the ear, measure the length, breadth and height of the crib, inside the rail; multiply the length by the breadth and the product by the height, then divide the product by two, and you have the number of bushels of shelled corn in the crib.

To find the number of bushels of apples, potatoes, etc., in a bin, multiply the length, breadth and thickness together, and this product by eight, and point off one figure in the product for decimals.

To find the amount of hay in a mow, allow 512 cubic feet for a ton, and it will come out very generally correct.

THE STORY OF OUR COINAGE.

Among the North American Indians strings of beads made from shells were used as currency. They were called *wampum*. In Colonial times the general court of Massachusetts soon recognized this money and fixed an arbitrary rate of exchange. Six white beads made from the sea-conch, or three purple beads made from the muscle-shell, were taken as equivalent to an English penny. Later four white and two purple ones were declared to have the same value. Musket balls were made legal tender for small amounts and furs and peltry for large sums. The coins brought from England and Holland tended to flow back to Europe, and the remaining ones were insufficient for the needs of the colonists.

In 1652, therefore, the general court of Massachusetts established a mint in Boston, and John Hull, mint-master, struck silver shillings, sixpences and threepences. All of these coins bore the device of the pine-tree. They were of the same fineness as the English coins of like denomination, but of less weight. This mint continued in operation for thirty-six years. After a while the "royal oak" was substituted for the pine-tree in order to conciliate King Charles II., who disliked this minting by a colony. All the above named coins bore the date of 1652; but two-penny pieces were added with the date of 1662. No other colony had a mint until 1659, when Lord Baltimore caused shillings, sixpences and groats to be coined for use in Maryland. James II. issued ten coins for circulation in America, though few of these have found their way hither. In 1722, 1723 and 1733 copper coins were minted in England with the legend "Rosa Americana." There were also copper half-pence issued in 1773 for circulation in Virginia, and in 1774 silver shillings were added. Florida and Louisiana had colonial coins of their own before they became parts of the United States.

After the Revolutionary war the Continental Congress passed an act in 1786 which established a mint and regulated the value and alloy of the national coin. The government prescribed the device for copper coin the next year. Under this authority the so-called "Franklin Penny," with the legend "Mind Your Business," was made by contract. By the Federal Constitution, ratified in 1789, the right of coining money was transferred from the States to the United States. Under this constitution the United States mint was established at Philadelphia in 1792, and the regular coinage began in the following year. Four have since been added: New Orleans (1835), San Francisco (1854), Carson City and Denver – all under the charge of the Bureau of the Mint of the United States Treasury Department.

By the act of Congress establishing the United States Mint the following coins were authorized, *Gold*, eagle, half-eagle, quarter-eagle; *silver*, dollar, half-dollar, quarter-dollar, dime, half-dime; *copper*, cent, half-cent. Changes have been made at various times, not only in weight and fineness, but also in the metals used for the minor coins. At present the following coins are struck: *Gold*, double-eagle, eagle, half-eagle, three-dollar, quarter-eagle, dollar; *silver*, dollar, half-dollar, quarter-dollar, dime; *minor coins*, of nickel and bronze, five-cent, three-cent and cent.

By the act of February 12, 1873, the metric system was to a certain extent used in determining the weight of the silver coins. Thus, the half-dollar was to weigh 12½ grams, the quarter-dollar 6½ grams, the dime 2½ grams.

Till 1837 the obverse of our coins had generally a female head, either with a liberty cap, or with a fillet bearing the word "Liberty." Afterwards it was replaced by a full-length seated figure with a liberty-cap on a pole, and a shield with a band inscribed "Liberty." The reverse of the principal coins has the eagle, often with a shield, arrows and olive branch. But in the minor coins the denomination of the piece is encircled by a wreath.

Up to 1849 eagles or ten-dollar gold pieces were the highest denomination authorized. But the discovery of gold in large quantity in California caused the demand for a larger coin, and the double-eagle was authorized by act of March 3, 1849, and issued in 1850. By the same act gold dollars were also authorized. Beside the governmental issues there were octagonal and ring dollars and even gold half-dollars and quarters issued in California. The Mormans in Utah also had gold coins of their own. These had peculiar devices, and their favorite inscription, "Holiness to the Lord."

NUMISMATICS AS A STUDY.

Besides its bearing upon the history, the religion, the manners, and the arts of the nations which have used money, the science of numismatics has a special modern use in relation to art. Displaying the various styles of art prevalent in different ages, coins supply us with abundant means for promoting the advancement of art among ourselves. If the study of many schools be at all times of advantage, it is especially so when there is little originality in the world. Its least value is to point out the want of artistic merit and historical commemoration in modern coins, and to suggest that modern types should be executed after some study of the rules which controlled the great works of former times.

WAR AND ITS APPLIANCES.

Is it, O man, with such discordant noises,
With such accursed instruments as these,
Thou drownest nature's sweet and kindly voices,
And jarrest the celestial harmonies?
—LONGFELLOW.

ARMIES, ARMS AND ARMOR.

Julius Cæsar invaded Britain, 55 B. C.

French Revolution, 1789; Reign of Terror, 1793.

Bunker Hill and Lexington were fought in 1775.

A rifle ball moves at one thousand miles per hour.

War was declared with Great Britain June 19, 1812.

War has cost France six million lives in this century.

The mercantile and armed navies of the world have 1,693,000 seamen.

Flint-lock muskets came into use about 1692; percussion caps in 1820.

The first fire-arms were rude hand cannon, made at Perugia, Italy, in 1346.

Franc-tireurs was the name of the French sharp-shooters in the war of 1870-71.

"Bravest of the Brave," was the title given to Marshal Ney at Friedland, 1807.

A battalion is the unit of command in infantry; a regiment is the administration unit.

Juvenal says that even those who do not wish to kill a man are willing to have that power.

Crécy, Poictiers, and Agincourt were won with the long-bow, then England's favorite war weapon.

Ishmael is mentioned as an archer, Gen. xxi, 20, and probably among the first known warriors.

The proportion of men capable of bearing arms is estimated at twenty-five per cent of the population.

The officers of the Swedish navy are considered as military officers, and in full dress are obliged to wear spurs.

The first steam vessel to engage in a naval battle was operated by the Spanish in the Don Carlos civil war of 1836.

It was Washington who said that to be prepared for war is one of the most effectual means of preserving peace.

Hetman was a title formerly borne by a general of Cossack troops; it was an elective rank, but gave absolute authority.

The military chest is a technical name for the money and negotiable securities carried with an army, and intended to defray the current expenses.

The Seven Weeks' War is the term sometimes applied to the Austro-Prussian war of 1866, which lasted from the middle of June till the end of July.

The form of breech-loading needle gun, adopted by the French army in 1866, was the invention of one Alphonse Chassepot, and was named in his honor.

When Louis XI. asked Marshal de Trivulce what was needed to make war, the answer came: "Three things, Sire; money, more money, always money."

The victors' share in property captured from the vanquished is called booty. It is generally a military term, the word prize being more commonly used in the navy.

In 1040 the Church forbid warriors from all combat between Wednesday of Passion Week and the following Monday—this interval hence being called the "Truce of God."

When a power maintains an armed force, and prepares itself for war on the outbreak of hostilities between other powers, it is said to assume an attitude of "armed neutrality."

According to Napoleon, the proportions of an army should be seventy per cent infantry, seventeen per cent cavalry, and thirteen per cent between artillery, engineers and train.

Spahi is the Turkish form of the Persian word *Sipahi* (from which we get Sepoy), and was the term for the irregular cavalry of the Turkish armies before the reorganization of 1836.

A sabretache is a leather case for carrying letters, etc. It is usually attached to the sword-belt of hussars and of most mounted officers. In the latter case it is often highly ornamented.

In the military language of the middle ages the term cap-a-pié was applied to a knight or soldier armed at all points, or from head to foot, with armor for defence and weapons for attack.

The word cartel means variously a challenge and a written agreement between belligerents for an exchange of prisoners. Cartel ship is a vessel commissioned to convey exchanged prisoners.

Belgium is called the "cock pit" of Europe because it has been the site of more European battles than any other country, *e.g.*: Oudenarde, Ramillies, Fontenoy, Fleurus, Jemappes, Ligny, Quatre Bras, Waterloo, etc.

A countersign is a watchword used in military affairs to prevent unauthorized persons passing a line of sentries whose orders are to stop any one unable to give it. It is changed by the commanding officer every day.

The greatest number of war prisoners at one time at Andersonville was 33,006. The number of escapes was 328. The total number of deaths was 12,462, about one-third of which took place in the stockade and two-thirds in the hospital.

The "Victoria Cross," which we often read of having been conferred upon some British soldier for conspicuous bravery, is of the Maltese form, made from Russian cannon captured at Sebastopol.

A court-martial is a court for the trial of all persons subject to military law or to the regulations of the navy. It is composed, according to circumstances, of a certain number of officers of the service involved.

Sealed orders in the navy are orders which are delivered to the commanding officer of a ship or squadron sealed up, and only to be opened after the ship or squadron has put to sea and proceeded to a certain point previously designated.

Suits of a uniform color and pattern for soldiers in the British army date from 1674, when the foot guards were clad in gray. The introduction of a regular uniform for sailors dates from 1748, when the "blue jacket" become customary.

The cockpit in the ship of war is the compartment in the lower part of the ship where the wounded are attended to during action. The surgery and the dispensary which contains the medicine chests for the ship's company adjoin the cockpit.

What we call the Mexican war (June 4, 1845 to February 2, 1848), was between the United States and Mexico. The Americans captured the city of Mexico September 14, 1847. The treaty of peace was signed Feburary 2, and ratified May 19, 1848.

At the close of the Franco-German war the Germans took from the French 7,234 pieces of cannon, including 3,485 field pieces and 3,300 fortress guns. At the battle of Waterloo the British artillery fired 9,467 rounds, or one for every Frenchman killed.

The temporary suspension of hostilities between two armies or two nations at war, by mutual agreement, constitutes an armistice. It takes place sometimes when both are exhausted, and at other times when an endeavor to form a treaty of peace is being made.

While the nominal pay of a British private is one shilling a day, or twenty-four cents, he really does not receive much more than half that in actual cash. Deductions are charged to his account for extra supplies of rations and for washing, which bring the net amount down to about $1 a week.

There is a gun in the British navy, a twenty-two-ton Armstrong, which hurls a solid shot a distance of twelve miles, the highest point in the arc described by the shot being seventeen thousand feet above the earth's surface. The discharge of the gun cannot be heard at the place where the ball strikes.

Armed bands of peasants are called guerrillas in Spain. The insurrections of Jack Cade, Wat Tyler, and Robert Kett would be so called in Spain. From 1808 to 1814 guerrillas were regularly organized against the French, and the names of Empecinado, the Pastor Merino, and Mina, as leaders, are well known.

Antietam is a narrow but deep river in Maryland, United States, falling into the Potomac, seven miles above Harper's Ferry. On its banks, near Sharpsburg, was fought a bloody battle between the Union troops under McClellan, and the Confederate army under Lee, in which the former remained master of the field, though at a loss of nearly thirteen thousand men.

The Gaelic word claymore, meaning "the great sword," is properly used of the old Celtic one-handed, two-edged long sword, often engraved on ancient tombstones, with the guards pointing downwards. The name is now commonly given, but inaccurately, to the basket-hilted sword of the officers of Highland regiments.

The Seven Days' Battles is the designation of a series of fierce engagements (June 25 to July 1, 1862), which took place in the neighborhood of Richmond, Va., between the Federals, under McClellan, and the Confederates, commanded by Lee, resulting in the retreat of the former to Harrison's Landing on the James River.

By the naval term "boarding" is understood an attack upon one vessel by another in which a company of armed men from the one forces its way on board the other. In the days of ironclads, boarding of war vessels is less frequent than of old. A "boarding net" is a framework of stout rope-netting placed so as to obstruct boarders.

Cartouch was formerly a name for a portable wooden case for holding cannon balls or musket bullets. A gun cartouch now means merely a waterproof canvas case for holding the cartridges of a field battery, one to each ammunition box. The cartridge box carried by the soldiers used to be called a cartouch in England, and still is in France.

The simultaneous discharge of all the guns on one side of a ship of war is termed a broadside. The fighting power of a ship used to be estimated by the weight of all the shot and shell that could be fired off at once from one side or half of the ship. Thus, the broadside of the old-fashioned "Duke of Wellington" 131-gun war steamer, amounted to 2,400 pounds.

The military term Uhlans was a name originally given to light cavalry armed and clothed in semi-oriental fashion. A body of Uhlans was formed for the French army by Marshal Saxe. But the word is now familiar as a term for the Prussian light cavalry armed with the lance, who gained glory by their dash, bravery and swiftness of movement during the Franco-German war.

The *casus belli*, occasion for war, is the reason alleged by one power for going to war with another. It is quite impossible to reduce these causes or reasons to any definite code; enough that in 1870 King Wilhelm's cold-shoulder to M. Benedetti was a casus belli between France and Germany, and that in 1847 the burning of a Jew's bedstead at Athens was all but one between France and Britain.

In the French and some other continental armies, the vivandière is a female attendant in a regiment, who sells spirits and other comforts, ministers to the sick, marches with the corps, and contrives to be a universal favorite. From the Algerian campaigns onward the vivandière wore a modified (short-petticoated) form of the regimental uniform; but this arrangement has been forbidden by government.

The calumet or "peace-pipe" of the North American Indians, is a tobacco pipe having a stem of reed or painted wood about two feet and a half long, decorated with feathers, with a large bowl, usually of red soapstone. After a treaty has been signed, the Indians fill the calumet with the best tobacco, and present it to the representatives of the party with whom they have been entering into alliance, themselves smoking out of it afterwards. The presentation of it to strangers is a mark of hospitality and to refuse it would be considered an act of hostility.

The European soldiery called *Landwehr* ("Land-defence") is a military force in the German and Anstrian empires, forming an army reserve, but not always retained under arms. Its members, although care is taken that they are sufficiently exercised, spend most of their time in civil pursuits during peace, and are called out for military service only in times of war or of commotion.

The battle of Lissa was the last great sea fight in history and the only one wherein armor-clad vessels have opposed other similar vessels in any number. It was fought on July 20, 1866, between the Austrians, under Admiral Tegethoff, and the Italians, under Admiral Persano. Each side had twenty-three vessels, but eleven of the Italian fleet were armor-clad, while the Austrians mustered only seven armor-clads.

Infernal machines are contrivances made to resemble ordinary harmless objects, but charged with some dangerous explosive. An innocent-looking box or similar receptacle is partly filled with dynamite or other explosive, the rest of the space being occupied by some mechanical arrangement, mostly clockwork, which moves inaudibly, and is generally so contrived that, when it has run down at the end of a predetermined number of hours or days, it shall cause the explosive substance to explode.

The Wars of the Roses is the name given to the wars between the house of York and that of Lancaster. It began with the battle of St. Albans, May 23, 1455, and ended with the battle of Bosworth Field, August 22, 1483. A white rose formed the badge of the House of York, and a red rose was the cognizance of the House of Lancaster. The political effects of the war were—(1) the ruin of the ancient baronage, and (2) the growth of monarchical power, being relieved of the baronial check.

The boomerang is a wooden missile used by the aborigines of Australia in hunting and in war. It is so constructed that the missile slowly ascends into the air, whirling round and round, and describing a curved line of progress till it reaches a considerable height, when it begins to retrograde, and finally, if thrown with sufficient force, falls eight or ten yards behind the thrower, or it may fall near him. Colloquially a boomerang is a story told for a political purpose, which, being proved false, reacts upon its originator.

The mace, a thick, heavy club or staff, about five feet long, surmounted by a metal head, frequently spiked, was used by knights and warlike churchmen in the middle ages, The ornamental maces of parliament, the universities, and city corporations, borne as an ensign of authority, may be traced to the twelfth and thirteenth centuries, when princes armed their guards with spikeless maces as the handiest against the sudden attacks of the assassins. The need passed away, but the maces remained as symbols of rank.

An indefinite but interesting locality is the Wilderness, a region in Virginia, two miles south of the Rapidan, covered with dense thicket, and memorable for the dreadful two days' battle fought in its depths by Grant and Lee, May 5-6, 1864. The Union loss was eighteen thousand, the Confederate eleven thousand, and the desperate fighting utterly without advantage to either side. The name Wilderness Campaign has been given to all the movements of Grant's overland march to Richmond, and including the battles of Spotsylvania Courthouse and Cold Harbor.

The Shenandoah is a river tributary of the Potomac, which flows through the valley of Virginia. It was the scene of numerous military operations during the civil war, notably in 1864, when its neighborhood was devastated by General Sheridan. One of the Confederate cruisers, commanded by Captain Waddell, was named the Shenandoah and committed great devastation among the shipping of the Federal Government. The vessel was surrendered to the British Government (Nov. 1865) and given up to the United States consul.

Contraband of war is a name applied to certain commodities during hostilities between states which acknowledge what are called the laws of nations. One such law is, that neutral nations must not carry on, for the advantage of either of the belligerent powers, any branches of commerce from which they are excluded in time of peace. Another is, that the name of contraband of war shall be given to such articles as pertain to military or naval warfare—guns, ammunition, and stores of all kinds. Negroes were held to be contraband of war during the civil war.

A singular weapon, used by the natives and half-breeds of southern South America, is the *bolas*, consisting of two heavy balls, generally of stone covered with leather, connected by a plaited thong six to eight feet long. One bola is held in the right hand, while the other is swung rapidly round the head at the full extent of the thong, and both are discharged at the animal to be captured so as to wind round its feet and bring it to the ground. In another form of bolas there are three balls, not of the same size, connected at the common center by three short thongs or ropes.

The sutlers and dealers in smallwares who follow an army are often called camp followers. In India, owing to the peculiar habits and customs of the natives, and the large number of servants retained by European troops, the camp followers sometimes number four times the actual force: comprising servants, grooms, grass cutters, mule and camel drivers, water-carriers, sutlers, snake charmers, dancers, conjurers, and women. Even in European armies they are necessary; they are at all times under the control of the commanding officer, but only subject to military law when in the field.

The military operation of capturing an enemy's town or fortress, often without a bombardment or regular siege, is called a blockade. The attacking party throws up works on the neighboring heights and roads, so as to guard every exit from the town. The rest of the besieging force remains under cover in villages, or in a temporary camp, ready to repel any sortie attempted by the besieged. The whole purpose in view is to prevent the besieged from receiving supplies of any kind, in order that, when the food or the ammunition is exhausted, they may be compelled to surrender. It was introduced by the Dutch about 1584.

Parole is the declaration made on honor by an officer in a case in which there is no more than his sense of honor to restrain him from breaking his word. Thus, a prisoner of war may be released from actual prison on his parole that he will not go beyond certain designated limits; or he may even be allowed to return to his own country on his parole not to fight again, during the existing war, against his captors. To break *parole* is accounted infamous in all civilized nations, and an officer who has so far forgotten his position as a gentleman ceases to have any claim to the treatment of an honorable man, nor can he expect quarter should he again fall into the hands of the enemy he has deceived.

The zouaves were originally a warlike tribe of Kabyles in the military employment of the Dey of Algiers. After the French occupation of Algiers (1830) they were incorporated with the French army, but the native element was gradually eliminated from the corps, and after 1840 the zouaves were simply French soldiers, bearing the native name and wearing the native dress. The zouaves distinguished themselves in Algiers, in the Crimean war, and in the Italian campaign of 1850, and were long looked upon as the *élite* of the French infantry.

The famous bashi-bazouks are irregular troopers in the pay of the Sultan. Very few of them are Europeans; they are mostly Asiatics from some or other of the provinces in Asiatic Turkey. They are wild, turbulent men, brave enough if serving under some leader who understands them; they receive no regular pay. They may be either infantry or cavalry, and their usual weapons are a long lance, a sabre, several pistols and one or more daggers. The famous "Bulgarian atrocities" of 1876, which roused the indignation of Europe and ultimately cost the corrupt Turks their supremacy, were mainly due to the lawless brutality of these ruffians.

The use of the bow and arrow was probably known to man at a very early period of his history, and triangular flint arrow-heads, chipped into the requisite shape, are found in all parts of the world, showing that they must have been known and largely used at a period anterior to the discovery of the working of metals. The bow is mentioned in Scripture as having been used in patriarchal times, and we know that all the leading nations of antiquity were acquainted with it. No one country or continent can claim the bow exclusively as its own. The Hottentots, Bushmen, South Sea Islanders and a few tribes in North America are experts in the use of the bow.

Gendarmes (Fr., "men-at-arms") were originally mounted lancers, armed at all points and attended by five inferior soldiers, who were furnished by the holders of fiefs. These were replaced by Charles VII.'s *compagnies d'ordonnance*, which were dissolved in 1787, one company of gendarmerie being retained as the bodyguard of Louis XVI. Since the Revolution, except for a short interval at the Restoration, the gendarmes have constituted a military police, which superseded the old *maréchaussée*, and comprise both cavalry and infantry. Divided into legions and companies, and these latter into brigades, the organization of the force corresponds to the territorial divisions of the army. The men receive much higher pay than the rest of the army, of which, however, the corps is a part, its members being drafted from the line for this service. Germany also since 1808 has had its *gendarmen*.

In 1478 Mohammed II., in forming the siege of Scutari, in Albania, employed fourteen heavy bombards, the lightest of which threw a stone shot of 370 pounds weight, two sent shots of 500 pounds, two of 750 pounds, two of 850 pounds, one of 1,200 pounds, five of 1,500 pounds and one of the enormous weight of 1,640 pounds, enormous even in these days, for the only guns whose shot exceed the heaviest of these are our 80-ton guns, throwing a 1,700-pound projectile, our 100-ton, throwing one of 2,000 pounds, and the 110-ton, throwing an 1,800-pound shot with a high velocity. The stone shot of Mahommed's guns varied between twenty and thirty-two inches in diameter, about the same height as a dining table; 2,534 of them were fired on this occasion, weighing, according to a calculation of General Lefroy's, about 1,000 tons, and

were cut out of the solid rock on the spot. Assuming twenty-four inches as the average diameter of the shot fired at this siege, the total area of the surface dressed was nearly 32,000 square feet. At this siege the weight of the powder fired is estimated to have been 250 tons. At the siege of Rhodes, in 1480, Mohammed caused sixteen basilisks, or double cannon, to be cast on the spot, throwing balls two to three feet in diameter.

Italy expends every year $96,000,000 for her soldiers, and less than $4,000,000 for schools. In Spain it costs $100,000,000 to maintain the army, and only $1,500,000 to educate the children, but then it is the exception to find a Spanish farmer who is able to read or write. Germany boasts of being in the foremost rank among the nations in the kulturkampf of the world, yet she expends $185,000,000 on her army, while $10,000,000 is deemed sufficient for the education of her children. France maintains an army at an expense of $151,000,000, and supplies her schools with $21,000,000. The United States expends $115,000,000 for public schools, while the army and navy cost only $54,000,000.

We apply the term blockhouse to a stockade roofed in and loopholed. The timber that forms the walls must be bullet proof and covered outside with earth up to the loop-holes to render them fire-proof. Where the country is well-timbered and no artillery attack is to be feared the blockhouse is a useful defense. The size and shape vary. It may be cruciform in plan, the second story may project over the first, or may be placed diagonally across the lower one. A ditch or moat is excavated around the blockhouse, to furnish the earth that covers the wood work and to provide a further defense. In the ditch stakes are planted as a hindrance to an attack by the enemy.

The charge of the Light Brigade at Balaklava, often called the "Death Ride," took place October 25, 1854. In this action 600 English horsemen, under the command of the Earl of Cardigan, charged a Russian force of five thousand cavalry and six battalions of infantry. They galloped through the battery of thirty guns, cutting down the artillerymen, and through the cavalry, but then discovered the battalions, and cut their way back again. Of the 670 who advanced to this daring charge, not two hundred returned. This reckless exploit was the result of some misunderstanding in an order from the commander-in-chief. Tennyson has a poem on the subject, called "The Charge of the Light Brigade." Sir Edw. Creasy in "The Fifteen Decisive Battles" says, that for chivalrous devotion and daring "the Death Ride" of the Light Brigade will not easily be paralleled.

The Janissaries or Janezaries were a body of Turkish soldiers first organized about 1330 A. D. by Sultan Orean from the young Christian prisoners. The name is from the Turkish *yeni askari*, new soldiers. The janissaries formed the earlier standing army of Europe. They were at first highly privileged and soon attained great power both in war and politics. In 1512 they raised Selim to the throne and caused the death of the famous Bajazet; in 1808 they objected to the organization of any other army than their own body and massacred all the new troops they could. In 1826 Mahomet II. suppressed them; his new troops remembering the massacre eighteen years before slaughtered 20,000 of the obnoxious troops. This put an end to the body. The massacre lasted three days, June 14, 15 and 16. When it was ended Mahomet organized his new armies in comparative peace.

The wager of battle is a mode of trial which prevailed in mediæval Europe, especially among the Teutonic nations, on writs of right and appeals of treason and felony. After the Conquest, in England, trial by combat superseded all other legal ordeals, which were abolished by Henry III. The wager of battle was claimed and allowed in the Court of King's Bench so late as 1818, but the appellant (the brother of the deceased) refused the challenge, and the appellee (a man named Abraham Thornton, accused of violating and murdering a maid named Mary Ashford) was discharged. In the following year (1819) the law of wager of battle was struck off the statute-book. The legal duel was the parent of the illegal private duel, which still exists, though in a languishing condition, in France and Germany.

RATIO OF LOSS IN GREAT BATTLES.

The number placed *hors-de-combat* in battle is not relatively so large as formerly, as the table below will show:

	Men Engaged.	Hors-de-combat.	Ratio.
Thrasymene	65,000	17,000	27 per cent
Cannæ	146,000	52,000	34 "
Bannockburn	135,000	38,000	28 "
Agincourt	62,000	11,400	18 "
Crécy	117,000	31,200	27 "
Marengo	58,000	13,000	22 "
Austerlitz	170,000	23,000	13 "
Borodino	250,000	78,000	31 "
Waterloo	145,000	51,000	35 "
Alma	103,000	8,400	8 "
Sadowa	402,000	33,000	8 "
Gravelotte	320,000	48,500	15 "

CHIEF BATTLES OF THE CIVIL WAR.

(From "Regimental Losses in the American Civil War," by William F. Fox, Lieutenant-Colonel, U.S.V.)

As to the loss in the Union armies, the greatest battles in the war were:

DATE.	BATTLE.	KILLED.	WOUNDED*	MISSING.	AGGREGATE
July 1-3, 1863	Gettysburg	3,070	14,497	5,434	23,001
May 8-18, 1864	Spottsylvania	2,725	13,413	2,258	18,399
May 5-7, 1864	Wilderness	2,246	12,037	3,383	17,666
September 17, 1862	Antietam†	2,108	9,549	753	12,410
May 1-3, 1863	Chancellorsville	1,606	9,762	5,919	17,287
Sept. 19-20, 1863	Chickamauga	1,656	9,749	4,774	16,179
June 1-4, 1864	Cold Harbor	1,844	9,077	1,816	12,737
Dec. 11-14, 1862	Fredericksburg	1,284	9,600	1,769	12,653
August 28-30, 1862	Manassas‡	1,747	8,452	4,263	14,462
April 6-7, 1862	Shiloh	1,754	8,408	2,885	13,047
December 31, 1862	Stone's River§	1,730	7,802	3,717	13,249
June 15-19, 1864	Petersburg (as a'lt)	1,688	8,513	1,185	11,386

*Wounded in these, and the following returns include mortaliy wounded.

†Not including South Mountain or Crampton's Gap.

‡Including Chantilly, Rappahannock, Bristol Station and Bull Run Bridge.

§Including Knob Gap, and losses on January 1 and 2, 1863.

The Union losses at Bull Run (first Manassas), July 21, 1861, were: Killed, 470; wounded, 1,071; captured and missing, 1,793; aggregate, 3,334.

The Confederate losses in particular engagements were as follows: Bull Run (first Manassas), July 21, 1861, killed, 387; wounded, 1,582; captured and missing, 13; aggregate, 1,982. Fort Donelson, Tenn., February 14-16, 1862, killed, 466; wounded, 1,534; captured and missing, 13,829; aggregate, 15,829. Shiloh, Tenn., April 6-7, 1862, killed, 1,722; wounded, 8,012; captured and missing, 959; aggregate, 10,694. Seven Days' Battle, Virginia, June 25-July 1, 862, killed, 3,478; wounded, 16,261; captured and missing, 875; aggregate, 20,614. Second Manassas, August 21-September 2, killed, 1,481; wounded and missing, 7,627; captured and missing, 89; aggregate, 9,197. Antietam campaign, September 12-20, 1862, killed, 1,896; wounded, 9,348; captured and missing, 1,367; aggre-

gate, 12,601. Fredericksburg, December 13, 1862, killed, 596; wounded, 4,068; captured and missing, 651; aggregate, 5,315. Stone's River, Tenn., December 31, 1862, killed, 1,894; wounded, 7,945; captured and missing, 1,027; aggregate, 10,266. Chancellorsville, May 1-4, 1863, killed, 1,665; wounded, 9,081; captured and missing, 2,018; aggregate, 12,764. Gettysburg, July 1-3, 1863, killed, 2,592; wounded, 12,706; captured and missing, 5,150; aggregate, 20,448. Chickamauga, September 19-20, 1863, killed, 2,268; wounded, 13,613; captured and missing, 1,090; aggregate, 16,971.

Gettysburg was the greatest battle of the war; Antietam the bloodiest. The largest army was assembled by the Confederates at the seven days' fight; by the Unionists at the Wilderness.

BLOOD AND TREASURE COST IN RECENT WARS.

The cost of recent wars, according to figures furnished by the London Peace Society; is as follows:

Crimean war	$1,700,000,000
Italian war, 1859	300,000,000
American civil war—North	4,700,000,000
" " " —South	2,300,000,000
Schleswig-Holstein war	35,000,000
Austrian and Prussian war, 1866	330,000,000
Expeditions to Mexico, Morocco, Paraguay, etc. (say only)	200,000,000
Franco-Prussian war	2,500,000,000
Russian and Turkish war, 1877	1,100,000,000
Zulu and Afghan wars, 1879	50,000,000
	$13,265,000,000

This would allow $10 for every man, woman and child on the habitable globe. It would make two railways all round the world at $250,000 per mile each.

LOSSES FROM WAR IN TWENTY-FIVE YEARS (1855–80.)

	Killed in battle, or died of wounds and disease.
Crimean war	150,000
Italian war, 1859	45,000
War of Schleswig-Holstein	3,000
American civil war—the North	280,000
" " " —the South	520,000
War between Prussia, Austria and Italy, in 1866	45,000
Expeditions to Mexico, Cochin-China, Morocco, Paraguay, etc.	65,000
Franco-German war of 1870-71—France	155,000
" " " " " —Germany	60,000
Russian and Turkish war of 1877	225,000
Zulu and Afghan wars, 1879	40,000
Total	1,588,000

LENGTH AND COST OF AMERICAN WARS.

	Wars.	Length.	Cost.
1.	War of the revolution	7 years—1775-1782	$ 135,193,703
2.	Indian war in Ohio territory	1790	.....
3.	War with the Barbary States	1803-1804	.....
4.	Tecumseh Indian war	1811	.....
5.	War with Great Britain	3 years—1812-1815	107,159,003
6.	Algerine war	1815	.....
7.	First Seminole war	1817	.....
8.	Black Hawk war	1832	.....
9.	Second Seminole war	1845	.....
10.	Mexican war	2 years—1846 1848	66,000,000
11.	Mormon war	1856	.....
12.	Civil war	4 years—1861-1865	6,500,000,000

AMERICAN DOCKYARDS.

The navy yards of the United States are eight in number. They are Portsmouth, Portsmouth, N. H., Charlestown, Boston, Mass., New York, Brooklyn, N. Y., League Island, Philadelphia, Pa., Washington, Washington, D. C., Norfolk, Norfolk, Va., Pensacola, Pensacola, Fla., and

Mare Island, San Francisco, Cal. There are also five naval stations—New London, Conn., Port Royal, S. C., Key West, Fla., Sackett's Harbor N. Y., and Erie, Pa.

DECISIVE BATTLES OF HISTORY.

Actium, B. C. 31. The combined fleets of Antony and Cleopatra defeated by Octavius, and imperialism established in the person of Octavius.

Philippi, B. C. 42. Brutus and Cassius defeated by Octavius and Antony. The fate of the Republic decided.

Metaurus, B. C. 207. The Carthaginians under Hasdrubul were defeated by the Romans under Caius and Marcus Livius.

Arbela, B. C. 331. The Persians defeated by the Macedonians and Greeks under Alexander the Great. End of the Persian empire.

Syracuse, B. C., 414. The Athenians defeated by the Syracusans and their allies, the Spartans, under Gylippus.

Marathon, B. C. 490. The Athenians under Miltiades defeated the Persians under Datis. Free government preserved.

Winfeld-Lippe, A. D. 9. Teutonic independence established by the defeat of the Roman legions under Varus at the hands of the Germans under Arminius (Hermann.)

Chalons, A. D. 451. The Huns under Attila, called the "Scourge of God," defeated by the confederate armies of Romans and Visigoths.

Tours, A. D. 732. The Saracens defeated by Charles Martel and Christendom rescued from Islam.

Hastings, A. D. 1066. Harold, commanding the English army, defeated by William the Conqueror, and a new régime established in England by the Normans.

Siege of Orleans, A. D. 1429. The English defeated by the French under Joan of Arc.

Defeat of the Spanish Armada, A. D. 1588. England saved from Spanish invasion.

Lutzen, A. D. 1632. Decided the religious liberties of Germany. Gustavus Adolphus killed.

Blenheim, A. D. 1704. The French and Bavarians under Marshal Tallard defeated by the English and their allies under Marlborough.

Pultowa, A D. 1709. Charles XII. of Sweden defeated by the Russians under Peter the Great.

Saratoga, A. D. 1777. Critical battle of the American War of Independence. The English defeated by the Americans under General Gates.

Valmy, A. D. 1792. An invading army of Prussians, Austrians and Hessians under the Duke of Brunswick, defeated by the French under Kellermann. The first success of the Republic against foreigners.

Trafalgar. On the 21st of October, A. D. 1805, the great naval battle of Trafalgar was fought. The English defeated the French and destroyed Napoleon's hopes to successfully invade England.

Waterloo, A. D. 1815. The French under Napoleon defeated by the allied armies of Russia, Austria, Prussia and England under Wellington.

Siege of Sebastopol, A. D. 1854–5. The Russians succumbed to the beleaguering armies of England, France and Turkey, and the result was delay in the expansion of the Russian Empire.

Gettysburg, July, A. D. 1863. The deciding battle of the war for the Union. The Confederates under General Lee defeated by the Union forces under Meade.

Sedan, A. D. 1870. The decisive battle of the Franco-German war.

RECENT DESPERATE WARS.

INDIAN MUTINY. General disaffection from a variety of real or supposed grievances had been for a long time smoldering amongst the Sepoys, who were the flower of the British East India Company's forces, but when a report spread that cartridges smeared with cow and pork fat were to be used by the native soldiers, open mutiny, attended with great cruelty, broke out. The war which may be said to have commenced in March 1857, raged until June 1858. It was marked by a succession of romantic, pathetic, and heroic incidents—the siege of Delhi, the massacre of Cawnpore, the relief and capture of Lucknow—but was suppressed in the latter year, when the East India Company ceased to exist, and the government of India was assumed by the British crown. A cruel vengeance was taken on the mutineers, hundreds of whom were strung together and blown to pieces at the mouths of cannon.

THE ABYSSINIAN WAR arose out of the imprisonment of Consul Capt. C. Cameron, Rev. H. Stern, a missionary, and others by King Theodore, in consequence of a supposed slight by the British Government, 1864. Mr. Rassam was sent on a mission to Abyssinia for their release. On the refusal of the king to surrender the prisoners, an English army, some 12,000 strong, under Sir Robert (afterwards Lord) Napier, defeated the Abyssinian forces at Arogee, April 10, 1868, and three days later stormed the fortress of Magdala. In consequence of this King Theodore committed suicide, the prisoners were released, and the war terminated.

AMERICAN CIVIL WAR. This began April 13, 1861, with the capture of Fort Sumter, Charleston, by the Confederate forces. The North prepared for the contest with energy, and blockaded the Southern ports. Throughout the war the Confederates chiefly acted upon the defensive, the Federals or Northern forces, being the attacking party, and possessing the advantage of superior forces, money and war material. The principal generals of the South were Lee, "Stonewall" Jackson, Hood, Albert Sidney Johnston, Longstreet, Bragg, Beauregard, Stuart, Joseph E. Johnston; and of the North, Grant, Sherman, Sheridan, McClellan, Thomas, Rosecrans, Pope, Butler, Halleck, Baker, Burnside, Frémont, Meade, Banks and McDowell. In the campaign of 1861 the advantage was chiefly on the side of the Confederates who were victorious at Bull Run (Manassas, Va.) and Ball's Bluff, Va. (October 21), but suffered a reverse at Springfield, Mo. (Aug. 10), and lost Fort Hatteras, N. C., captured by Butler (August 29). During 1862 the Confederates were successful at Bull Run (August 20) and in Virginia (June) at Fredericksburg, Va. (Dec. 10-15), but sustained severe defeats at Mill Springs, Ky. (January 19), Pea Ridge, Ark. (March 6-8), Winchester, Va. (March 23), Williamsburgh, Va. Great battles were fought at Shiloh, Tenn. (April 7), Fair Oaks, Va. (May 31, June 1), on the Chickahominy (June 25-July 1) and Antietam Creek, Md. (September 17), in none of which either party could claim a victory; but the battle of Antietam Creek obliged Lee to abandon his invasion of the North. During this year the naval operations of the Federals were generally successful, Admiral Farragut running past the forts of the Mississippi and seizing New Orleans (May). The memorable conflict between the "Merrimac" (Confederate) and the Federal "Monitor" resulted (March 9) in the repulse of the former, the "Merrimac" being burnt by the Confederates on the capture of their arsenal at Norfolk, Va. (May 11). The war during 1863 was decidedly in favor of the Federal

forces, although the Confederates, under "Stonewall" Jackson, defeated Hooker at Chancellorsville (May 2-4), Jackson subsequently dying from his wounds (May 10) and Lee invaded Maryland and Pennsylvania. At Gettysburg, Pa. (July 1-3), Lee was defeated, and retreated into Virginia, while at Chattanooga, Tenn. (Nov. 24-25) the Confederates, under Bragg, sustained a severe repulse. Grant made a successful campaign in Tennessee, gaining several battles and capturing, Vicksburg, Miss., which after a gallant defence, surrendered (July 4). In August the siege of Charleston began, and Fort Sumter was destroyed (August 21-22), but the city was not taken until 1865 (February 18). With the appointment of Grant as commander-in-chief, in the early part of 1864 (March 3) and his vigorous reorganization of the army, the power of the North was greatly strengthened. Taking the command of the army of the Potomac, Grant opposed the Confederates under Lee, while Sherman operated against Joseph E. Johnston. In the Virginian campaign, after two days severe fighting (May 3-6) at the Wilderness, the result was indecisive, and Grant's attempt to cut off Lee's army from Richmond was unsuccessful. At Atlanta, Ga., Sherman, in three battles (July 20, 22, 28), defeated the Confederates under Hood. In the Shenandoah valley the Federals were victorious in several engagements (August) and under Sheridan at Winchester (September 9) and Cedar Creek (October 19). In November General Sherman marched through Georgia to Savannah, which was entered December 21, while at Nashville, Tenn., the Confederates under Hood were defeated (December 14-16) by the Federals under Thomas. Among the incidents of this year were the sinking (June 19) by the Federal corvette "Kearsarge" of the Confederate steamer "Alabama" commanded by Captain Semmes, which had caused great devastation among the Federal shipping, and the destruction (August 5,) by Admiral Farragut, of the Confederate flotilla at Mobile. The war closed in 1865 by the defeat of Lee at Five Forks, Va., (March 31-April 2) by Sheridan, who again defeated Lee at Sailor's Creek (April 6). Lee subsequently surrendered (April 9) his army to Grant who had occupied Richmond, the capital of the Confederate States (April 2) on its evacuation by the Southern forces. The other Confederate armies soon afterwards surrendered. An amnesty, with certain limitations, was proclaimed (May 29) by President Andrew Johnson (1865-69), who, as vice-president, succeeded Abraham Lincoln, assassinated in Ford's Theatre, Washington, by J. Wilkes Booth (April 14) Lincoln having but newly entered on his second term of office.

RUSSO-TURKISH WARS. Of the many wars between the Muscovite and Mohammedan powers, we cite the two latest: (1) The first arose from a demand on the part of Nicholas, the Czar of Russia, of a protectorate over the Greek Christians in Turkey. The Sultan refused the demand, and appealed to his allies. Russia declared war against Turkey, November 1, 1853. England and France declared war against Russia, March 27, 28, 1854. Sardinia joined the allies January 26, 1855. Among the great battles of this war were Alma (September 20, 1854), Balaclava (October 25, 1854), during which occurred the memorable "Charge of the Six Hundred." Inkerman (November 5, 1854), Tchernaya (August 16, 1855), in all of which the Russians were defeated. The great event of the war was the siege of Sebastopol (commenced October 17, 1854), which fell September 8, 1855. The war which is usually termed the Crimean war, was ended by the treaty of peace concluded at Paris, March 30, 1856. One of the articles of this treaty was that the Christians of Turkey, without

any preference to Russia, should have the protection of all the Powers concerned in the treaty. (2) The second war arose (1877-8) from substantially the same cause as the war of 1853-6, viz., the desire of Russia to protect the Greek Christians of Turkey. By a protocol of March 31, 1877, the Great Powers agreed to see the promised reforms of Turkey carried out. This protocol was repudiated by Turkey, and war was declared by Russia against Turkey, April 24. Among the more prominent events of this war were General Gourko's march through the Balkans (July 13), his defeat by Suleiman Pasha at Eski Sagra (July 30), and Suleiman Pasha's desperate, but fruitless, attempt to gain the Schipka Pass held by General Gourko; the fall of Kars (November 18), and of Plevna (December 10), and Suleiman Pasha's defeat by Skobeloff and Radetsky at Senova (January 9, 1878), the battle which virtually ended the war. Treaty of San Stefano (March 3), modified by treaty of Berlin (July 13), by which Bulgaria was created an automatic and tributary principality, Servia and Roumania were declared independent, and Bosnia and Herzegovina were ordered to be occupied and administered by Austria.

ZULU WAR (1879). Cetewayo, king of Zululand, became embroiled with the British on the annexation by the latter of the Transvaal, and the British, under Lord Chelmsford, crossed the Tugela, and entered Zululand (January 12). They suffered a terrible reverse at Isandhlwana (January 22), with a loss of eight hundred men, and in spite of the heroic defence of Rorke's Drift (January 22), had to retreat. Eventually reinforcements arrived, and the Zulus were defeated at Ginghilono (April 2), and Ulundi (July 4). Cetewayo was captured (August 28), and a despatch from Sir Garnet Wolseley (September 3), announced the end of the war. Cetewayo died (February 8, 1884), the New Republic was formed by a party of Transvaal Boers (1886-87), and the annexation of the remainder of Zululand as a British possession was proclaimed (June 21, 1887). Trouble subsequently arose, and several Zulu chiefs were convicted of high treason and sentenced to various terms of imprisonment (1888-9). Towards the end of 1891, the resolution of the colonial authorities to impose Zibebu as chief upon the northern tribes, was protested against by Miss Colenso as likely to lead to further troubles in Zululand.

FRANCO-GERMAN WAR. The friction between France and Prussia, arising from the proposed cession of Luxembourg, became accentuated by the demand of France that the Crown of Spain, offered (1870) to Prince Leopold of Hohenzollern, should not be accepted by that Prince. On the refusal of Prussia to accede to this request, war was declared by France (July 19, 1870). The Prussian forces, about 640,000 strong, in which were associated the states of the North and South German Confederation, were divided into four armies, the first, that of the North, commanded by Gen. Vogel von Falkenstein; the second, that of the Centre, commanded by Gen. Steinmetz; the third, that of the Right, under Prince Frederick Charles; and the fourth, that of the Left, led by the Crown Prince, the King (William) of Prussia being commander-in-chief, with Gen. Von Moltke as head of the Staff. The whole army was in the highest state of preparation and efficiency. The French army, about 300,000 strong, on the other hand, badly organized and practically unprepared for the contest, was formed into six army corps, respectively commanded by Generals Frossard, De Failly, Bazaine, MacMahon, Ladniérault and Marshal Canrobert. The Emperor, nominally commander-in-chief, had as his second in command, General Le Bœuf, to whom,

later, Marshal Bazaine succeeded. The war resulted in an almost unbroken series of successes for the Germans. After victories at Woerth and Forbach (both on August 6), the Germans invested the fortress of Strasburg (August 10—capitulated September 28), and sat down before Metz, which capitulated (October 27), after the battles of Longueville (August 14), Mars La Tour (August 16), Gravelotte or Rézonville (August 18), and unsuccessful attempts at a sortie by Marshal Bazaine (August 26 and October 6). At Sedan the French under Marshal MacMahon were hopelessly beaten (September 1), and the Emperor surrendered to the Prussian King (September 2), and was deported as prisoner to Wilhelmshöhe (Cassel). At Paris (September 4) the deposition of the Imperial dynasty was declared, and the establishment of a *Republic* proclaimed by M. Gambetta and other members of the Left in the Legislative Assembly. A government of defence was proclaimed, with General Trochu as President, M. Gambetta as Minister of the Interior, M. Jules Favre (Foreign), General Le Flo (War). The Empress Eugènie fled from Paris (September 4), and settled at Chiselhurst. Negotiations for peace between M. Favre and Count Bismarck ended in failure (September 24), and a proclamation from the Government at Tours was issued calling upon the people "to fight to the bitter end." The siege of Paris was commenced by the Germans (September 15), and five days later the troops at Versailles surrendered, and the Crown Prince of Prussia occupied the place. A *levée en masse* of all under twenty-five years of age was ordered by the government (September 23), and all Frenchmen between twenty and twenty-five years were prohibited (September 26) leaving France, those between twenty-one and forty years being organized as a national *garde mobile.* M. Gambetta, escaping by means of a balloon from the beleagured city (October 7), was appointed by the government at Tours Minister of War. An attempt on the part of the Red Republicans at Paris, headed by Blanqui, Lédru-Rollin and others, to establish a Commune in that city, was successfully defeated (October 14). The news of the capitulation of Metz caused riots at Paris (October 31). As the result of a *plébiscite* to confirm the powers of the Government of Defence, the votes recorded were 557,976 for, 62,638 against. The successes of the German arms continued, the army of the Loire was defeated by the Grand Duke of Mecklenburg (November 17), the fortresses of Verdun (November 8) and Thionville (November 27) capitulated. The army of the Loire under General Chanzy was again attacked and defeated at Beaugency (December 8). After various battles, the army of the Loire, fighting and retreating, was defeated by Prince Frederick Charles at Le Mans (January 11, 1871), and near Vosges (January 15-16). The army under General de Paladines, entrenched at Orleans, suffered defeat by Prince Frederick Charles (December 4), and Orleans surrendered, Rouen being two days later occupied by General Manteuffel, who engaged the army of the North under General Faidherbe at Point á Noyelles (December 23), and at Bapaume (January 2-3, 1871), the French retreating in each case. General Bourbaki was also defeated by the German general Von Werder, near Belfort (January 15-17), and General Von Goeben gained a victory over the French under Faidherbe at St. Quentin (January 19). After gallant, but unsuccessful sorties from Paris by Generals Trochu and Ducrot (November 20 and January 21), the city, which had been bombarded, capitulated (January 28). Following the fall of Paris, Gen. Bourbaki's army was defeated (January 30-February 1) by the Germans under General Manteuffel, and driven across the frontier into Switzerland. The fortress

of Belfort capitulated (February 16) with military honors after a long defence. An armistice took place preparatory to negotiations for peace. On the resignation of M. Gambetta a National Assembly was elected (February 8) of which M. Grévy was chosen president, M. Thiers becoming head of the executive power. The French Government was recognized by the chief European powers (February 18), and (February 26) preliminaries of peace were signed by MM. Thiers and Favre and fifteen delegates of the National Assembly on the part of France, and Count Bismarck on the part of Germany. By this France was to cede certain parts of Lorraine, including Metz and Thionville and Alsace, excluding Belfort. In addition, five milliards of francs ($1,000,000,000) were to be paid as war indemnity to Germany; certain departments to be occupied by German troops until this was fully discharged. The treaty, signed February 26, was accepted by the National Assembly sitting at Bordeaux (March 1), by 546 votes to 107, at the some time unanimously confirming the fall of the Empire. The Germans after occupying Paris for forty-eight hours (March 1-3), withdrew from Versailles (March 12). A Peace Conference met at Brussels (March 28), and at Frankfort a definite treaty of peace was signed (May 10), and ratified by the French Assembly (May 21). The last instalment of the indemnity was paid September 5, 1873, and the last of the German troops quitted French soil (September 16). The Red Republicans under the lead of Blanqui, Gustav Flourens and Felix Pyat rose in revolt (March 18, 1871) against the Government, held Paris and established the Commune, which was not suppressed until the insurgents had committed many outrages and destroyed much property, after holding possession of Paris until May 28, when the troops under Marshal MacMahon captured the city; some eight hundred troops were killed, the Communist forces losing fifty thousand. One-fourth of Paris was destroyed, the loss to property being estimated at $160,000,000. Great numbers of the Communists were subsequently tried, some executed, and the remainder transported.

THE LATEST EXPLOSIVE.

It begins to look as if the days of gunpowder as a charge for the guns in the British navy were numbered. Recent experiments at the government proof butts, Woolwich, appear to prove the decided superiority of cordite. A six-inch quick firing gun was loaded with twenty-nine pounds twelve ounces of the ordinary black gunpowder and yielded a velocity of 2,890 feet per second, with a pressure strain on the gun of fifteen tons per square inch. The same gun was charged with fourteen pounds three ounces of cordite, and gave a velocity of 2,274 feet per second, and a pressure of 15.2 tons. More important still, after 250 rounds had been fired there were no signs of erosion. The new substance is manufactured by the English government, and contains fifty-six per cent of nitro-glycerine, thirty-seven of gun cotton and five of mineral jelly. The velocity of the shot along the bore of the six-inch gun was calculated to the millionth of a second from the first moment of being set in motion. Minute as they may appear, Lieut. H. Watkin, R. A., has invented an instrument which, it is said, will measure fractions of time to the nine-billionth part of a second! About fifty of the six-inch quick-firing guns have been supplied to the navy, and the authorities at the Royal Gun Factories have begun the manufacture of the larger guns of the same pattern, with a velocity of 1,300 miles per hour.

CREEDS OF THE WORLD.

Happy the man who sees a God employed
In all the good and ill that checker life!
Resolving all events, with their effects
And manifold results, into the will
And arbitration wise of the Supreme.
—COWPER.

NOTES ON FAITH AND WORSHIP.

Apollo was worshipped on Mt. Parnassus.

The name "diabolos" means "a slanderer."

There is no definition of religion in the Bible.

The first altar mentioned was that raised by Noah.

The cross was first displayed in churches about 431.

The term Puritan was first used in England in 1567.

In the Greek church all priests are called Papa, or Pope.

The Passion Play at Oberammergau was instituted in 1634.

Deism is the term for natural as opposed to revealed religion.

The poet Young wrote: "By night an atheist half believes a God."

The Jains are an East Indian sect, between the Hindus and Buddhists.

Marabouts are religious devotees held in great reverence by the Berbers.

Abrahamites were a Bohemian sect that prevailed about 1782, now extinct.

Some writers insist that absolute atheism has never existed in a reasoning mind.

It was Shakspeare who said that "the devil can cite Scripture for his purpose."

The adherents of Zoroastrianism, the ancient faith of Persia, are called Parsees.

The shamrock is said to have been used by St. Patrick as a symbol of the Trinity.

The oldest church edifice in this country is that of San Miguel, Santa Fé, N.M.

No general term equivalent to religion is found either in Chinese, Sanscrit or Hebrew.

Giaour is a term applied by the Turks to all who do not believe in Mahommedanism.

Tennyson calls faith "the great world's altar stairs, that slope thro' darkness up to God."

What are called the monastic vows are three in number—poverty, chastity and obedience.

The British and Foreign Bible Society has issued the Good Book in three hundred tongues.

The canonical books are those books of Holy Scripture accepted as genuine by Christian churches.

He was a cunning wag who said: "Orthodoxy is my doxy and heterodoxy is the other fellow's."

Washington endorsed the idea that if there had been no God men would have been obliged to imagine one.

The ascetics were ancient Christians who sought a higher and more spiritual life by means of severe penances.

Sir Isaac Newton said: "I find more sure marks of authenticity in the Bible than in any profane history whatever."

Charles Kingsley observes that true religion will make a man a more thorough gentleman than all the courts in Europe.

A strict definition of nihilism is that system of philosophy which totally rejects religion and substitutes nothing for it.

The ten persecutions of the early Christian church are dated from the years 64, 95, 106, 166, 202, 235, 249, 258, 274 and 303 A.D.

Freethinker was the name applied from one to two centuries ago to those deists who favored natural as against revealed religion.

The Stoics taught that God is the soul of the world, and that man's supreme good is to live in the perfect harmony of the universe.

There are two places in London where clergymen can buy sermons printed. They cover all subjects, and can be had for every season.

The Gnostics were an early speculative school, with principles based on oriental philosophy, combined with certain tenets of Christianity.

The belief in and worship of one personal God is called monotheism. Judaism, Christianity and Mahommedanism are all monotheistic.

Dervishes are Mohammedan devotees. They are divided into two sections—the Mevlevies, or dancing, and the Nakshbendies, or howling dervishes.

The chamber or vault beneath a church, generally under the altars, where the dead, and particularly ecclesiastics, were formerly entombed, is called a Crypt.

The Treacle Bible is Beck's Bible of 1549, in which the word balm is rendered treacle. The Bishops' Bible has *tryacle* (Jer. iii, 22; xlvi, 11; and Ezek. xxvii, 17).

The Apple of Sodom is a fruit mentioned by Strabo, Josephus, and others, as growing on the shores of the Dead Sea. It was tempting to the eye, but if tasted filled the mouth with bitter ashes. It is supposed to have been an oak-gall, or the fruit of the solanum.

The deluge is the inundation of the world recorded in the Mosaic history. It began December 7, 1656, A.D., or 2348, B.C., and lasted 377 days (Gen. vi, vii, viii). The mythological history of many nations mention inundations which correspond with the Scriptural account.

Antichrist is a name which occurs only in the epistles of St. John, and is identified by different writers with more or less probability with false Christs, and other enemies of Christianity.

The Angelus Bell is, in Catholic churches, a bell rung at morning, noon and sunset, to invite the faithful to recite the Angelic Salutation. It gives name to a very famous picture by Millet.

The great writers and teachers who succeeded the Apostles from the second to the sixth centuries are those called the Fathers of the Church. They included St. Athanasius, St. Augustine, etc.

The consistories were councils formed for maintaining ecclesiastical discipline and regulating divine worship in the German Lutheran Church, 1542-55. A consistory is the highest papal council.

Many of the South Sea islanders believe that paradise can be inherited only by persons of perfect physical forms. Where this belief prevails a man will die rather than submit to amputation.

An assembly of the clergy of cathedral churches, usually held in the chapter-house, is called a chapter. The Parliaments of England were held in the chapter-house of Westminster Abbey from 1377 to 1547.

The five points of Calvinism as set forth by John Calvin of Picardy are: (1) Predestination and reprobation; (2) original sin; (3) particular redemption; (4) irresistible grace; (5) the perseverance of the saints.

Coverdale's Bible was issued in 1535. This translation of the Bible by Miles Coverdale, afterwards Bishop of Exeter, was dedicated to Henry VIII., and was the first English Bible sanctioned by royal authority.

The primary meaning of Chapel was a chest containing relics or their shrine. Now it is a place of worship subordinate to a cathedral or large church, or connected with a castle, university or other institution.

Though often treated as a proper name by the translators, Belial is really an abstract term meaning "that which is without use or profit," hence "wickedness." "Sons of Belial" is one of the commonest forms in use.

The staff, terminating in a cross, carried before archbishops, is known as the crozier; it was used as early as 500 A. D. The crozier of an archbishop differs from that of a bishop in having a cross instead of a crook on the top.

Canonization is the act by the Pope of declaring a deceased person to be a saint. The deceased's name is then put in the Canon or Litany of the saints, and a day dedicated to his honor. Canonization cannot take place within less than fifty years of the death of the person to be canonized.

The Cartesian doctrines, founded on the principle "I know, therefore I am," were first promulgated by Réné Descartes of Touraine in 1837. He held that thought proceeded from the soul, so that man was not entirely material, and that the soul must be from some being not material—*i. e.* God.

In the Roman Catholic Church, the reception of the tonsure, a bare circle on the crown of the head, precedes admission into orders, and is administered by the bishop. The Greek priests also bear the tonsure. The earliest ecclesiastical precept on the tonsure occurs in a canon of the Council of Toledo (633 A. D.).

All travelers in India have seen the Bonze, which is the European name for Buddhist priests, who in many respects resemble monks in the Christian Church, doing penance and praying for the sins of the laity. There are also female bonzes.

There are three religious systems in China: That of Yu, restored by Koun-fou-tse (Confucius); the State religion, in which the emperor acts as the priest and intermediator; and the third is Buddhism. There are, however, Moslems, Christians and even a few Jews in China.

The name of Buddhists (*i. e.*, "the enlightened,") is applied to the followers of Gautama Siddhartha, the Sakya Muni, generally called Buddha, a prince of Central India. Founded about 500 B.C. Buddhism is the chief religion in India beyond the Ganges, China, Japan and Ceylon.

In the National Museum at the City of Mexico is the stone head of an idol which, until its discovery by some missionaries a short time ago, was still being worshipped by the Indians in the State of Morelos. The head was on a statue of immense size, covered with a crocodile's hide.

The Swedenborgians, or "The New Jerusalem Church," are the followers of Dr. Emanuel Swedenborg (1688–1772). They hold peculiar views respecting salvation, inspiration, and the Trinity. In regard to the Trinity, they believe it to be centred in the person of Jesus Christ.

The purgatory of the Islamites is called Al Araf, and it is supposed to be located half way between hell and paradise. Mohammed is believed by the whole sect of Islam to be the only person who has ever gone to paradise without being forced to go through a preparatory course at Al Araf.

Among curious copies of the Scriptures is one known as the Breeches Bible, printed in 1577 by Whittingham, Gilby, and Sampson. So called because Gen. iii. 7 runs thus: "The eyes of them bothe were opened..... and they sewed figge-tree leaves together and made themselves breeches." It is also called the "Geneva Bible."

Dies iræ (day of wrath) are the opening words of a Latin hymn which describes the judgment of the world. Ascribed to various authors, among others to Pope Gregory the Great (590) and St. Bernard, but more generally to Tommaso da Celano (fifteenth century); *c.* 1385 adopted into the Roman Catholic Church liturgy.

The Zendavesta is said to have been written by Zoroaster in letters of gold on twelve thousand skins of parchment, and to have been deposited by Darius Hystaspês in the Castle of Persepŏlis, about B. C. 500. "Zend" is the language and "avesta"=text. The compound word means the sacred books of Zoroaster in the Zend tongue.

Gehenna is the place of everlasting torment. Strictly speaking, it means the Valley of Hinnom (*Ge Hinnom*), where sacrifices to Moloch were offered, and where refuse of all sorts was subsequently cast, for the consumption of which fires were kept constantly burning. There was also a sort of *aqua tofana*, called *liquor Gehenna*.

Kulturkampf is the term applied to the ecclesiastical controversy with the Church of Rome in Germany, arising from an effort of the State to vindicate its right to interfere in the affairs of all religious societies. The contest began in 1872 with the expulsion of the Jesuits, and ended with Prince Bismarck's concessions in revisions of the politico-ecclesiastical legislation in 1886 and 1887.

Taouism is the name given to a religious system in China founded by Lao-Tseu, who was born B. C. 604. It has degenerated into a sort of polytheism. Its priests, who are looked on as magicians and astrologers, are consulted about the sites of houses, burial grounds, fortunate days, and other responses of the fortune-teller's character.

The Methodist Episcopal Church in the United States holds a general conference once in four years, which is the highest legislative body in that Church. The Wesleyan-Methodists also hold an annual conference in Great Britain, at which the business of the body is transacted and arrangements for the circuits made for the year.

The Agapemone (abode of love), is a conventual establishment near Bridgewater, England, instituted 1859, by Henry J. Prince, formerly a clergyman. Its members profess to devote themselves to spiritual recreation, and maintain spiritual marriage. The sect, which had fallen into obscurity, has recently come again into prominence.

The religion of the followers of Mahommed (570-632) is embodied in the Koran. It includes belief in one God, in angels, in good and evil spirits, in a general resurrection and judgment, with future rewards and punishments, in predestination, and in a Paradise where the faithful spend their time in the society of beautiful women (houris).

Ultramontane, meaning "beyond the mountains," originally referred to the Alps—namely, in relation to France. Later it had reference to that party in the Church of Rome which assigns the greatest weight to the papal prerogative. Italians of course use the word in a converse geographical sense for people beyond the Alps, and so in the north of Europe.

Korân (Arab., from *karaa*, "to read"), *The Reading*, by way of eminence; a term first applied to every single portion of Mahommed's "Revelations," used at a later period for a greater number of these, and finally for their whole body, gathered together into the one book which forms the religious, social, civil, commercial, military, and legal code of Islam.

American pioneers were God-fearing and Bible-loving. They staked out town lots in twenty-two Bethels, ten Jordans, nine Jerichos, fourteen Bethlehems, twenty-two Goshens, twenty-one Shilohs, eleven Carmels, eighteen Tabors and Mount Tabors, twenty-two Zions and Mount Zions, twenty-six Edens, thirty Lebanons, twenty-six Hebrews and thirty-six Sharons.

Secularism is the name given to the principles advocated (about 1846) by George Jacob Holyoake, a native of Birmingham. The central idea of Secularism is freedom of thought, and freedom of action without injury to others. It is the religion of the present life only, and its standard of morals is utilitarian. Mr. G. J. Holyoake was succeeded in the leadership of English secularists by Mr. Charles Bradlaugh, who died in 1891.

The secular clergy are the clergy generally who live in private houses. Nearly all archbishops, bishops, deans, canons and parochial clergymen are seculars, in contradistinction to the regulars, who, having vowed obedience, chastity and poverty, live in some religious house, dead to the world and the "civil law" by their "entrance into religion." Called "regulars" because they live under the *regula* or rule of some religious house.

Hades, in the religion of ancient Greece, was the name applied to the kingdom of the under-world, the abode of the departed spirits or shades. Hades and Pluto are also personal names for its king. It is the Greek word by which the Septuagint translates the Hebrew *sheol*, the abode of the dead, in which sense it occurs frequently in the New Testament.

The devotional term litany applies to a form of prayer in which the same thing is repeated several times at no long intervals. Hence in Latin the word is always used in the plural, *litaniæ*. The common formula, *Kyrie eleison, Christe eleison, Kyrie eleison*—"Lord, have mercy upon us—Christ, have mercy upon us—Lord, have mercy upon us"—is the simplest ("lesser") litany.

The English church assembly termed Convocation, is recorded to have met under the king's writ in 1294. Its power was limited by Henry VIII., and further in 1716. Since 1854 its proceedings have been formal, though it was authorized to deliberate on alterations of the Liturgy in 1872. Convocation is now a deliberative council of representative Churchmen, but has no official authority.

In the ceremony of the greater excommunication by the Catholic Church, since the eighth century, after reading the sentence a bell is rung, the book closed, and a candle extinguished; and from that moment the person excommunicated is excluded from the communion of the faithful, from public worship, and the sacraments. Hence comes the expression "bell, book and candle."

Camp-meetings are gatherings of devout persons, held usually in thinly populated districts, and continued for several days at a time. It was in connection with Methodism in America that such meetings became especially prominent. The introduction of the protracted camp meetings into England in 1799 by Lorenzo Dow, led to the separation of the Primitive Methodists from the Wesleyans.

Humanitarians is a name assigned to anti-Trinitarians, who regard Christ as a mere man, and refuse to ascribe to him any supernatural character, whether of origin or of nature. The name Humanitarian is also sometimes applied to the disciples of St. Simon, and in general to those who look to the perfectibility of human nature as a great moral and social dogma; also to those who, from over-philanthropy, object to severe measures, such as capital punishment, etc.

The Temple Society is a body of German Christians who wait for the second coming of Christ. They separated from the Church in Würtemberg and formed a separate sect; and many of them settled in Palestine in 1868, where they now have colonies at Haifa, Jaffa, Sarona and near Jerusalem. They are distinguished for industry, enterprise and success. There may be about five thousand in all of the community, of whom about thirteen hundred are in Palestine.

The Septuagint is the Greek translation of the Old Testament, made from the Massoretic text at Alexandria. Tradition says that it was executed in the reign of Ptolemy Philadelphus (284-47 B. C.), by seventy-two translators in 72 days; but critics hold that it is the work of different times. The Septuagint was the official Bible of the Hellenistic Jews until after the destruction of the Temple, and it became the official Bible of the Catholic Church. Most of the Old Testament quotations in the New Testament are taken from the Septuagint.

Mephistopheles is the name of one of the best-known personifications of the principle of evil. The word has been very variously explained, but is probably of Hebrew origin, like most names of devils in the history of magic, confounded with, and approximated in form to, the Greek mēphōstŏphilēs, "one who loves not light." Mephistopheles owes all his modern vitality to Goethe's "Faust."

The Mojaves believe that all who die and are not cremated are turned into owls, and when they hear the dismal screech of one of the above named creatures of the night, they tell you that it is the spirit of some dead Mojave who has returned to advise his people to submit to the ordeal of fire. When one of the tribe dies his relations and immediate friends do not eat salt or wash themselves for four days.

The word bull is derived from the Latin *bulla*, "a bubble of water," and then "a round ball of any kind." In the middle ages it came to signify the capsule of the seal appended to letters from emperors or popes, next it was used for the seal itself, and lastly for the document to which the seal was appended. Its use is now commonly restricted to papal documents issued with certain indispensable formalities.

The Douay Bible was a translation made by the professors connected with the College of Douay, founded in 1568 by Dr. William Allen for the education of English boys designed for the Roman Catholic priesthood. These students were to be sent into England as itinerant preachers, with the view of creating a reactionary feeling and upsetting the Reformed Church. Dr. Allen himself worked on the translation.

The title of Beelzebub was given to the form of Baal worshipped by the Philistines at Ekron. As the heathen deities were all regarded as demons by the Jews, the name Beelzebub became, in course of time, commonly applied to the chief of evil spirits, and in this sense it is employed in the Gospels. The more correct reading of the word is *Beelzebul*, variously explained as "lord of the dwelling," "lord of the dunghill."

The Graal or "The Holy Graal" was a miraculous chalice made of a single emerald, which was stated to possess the power of preserving chastity and prolonging life. It is said to have been the cup from which Christ drank at the last supper, and in which Joseph of Arimathea caught the last drops of blood as Christ was taken down from the cross. In 1170 Chrétien of Troyes sang of the search by knights for this miraculous cup, which was a very favorite subject in the middle ages.

The Veda is the sacred canon of the Brahmins. It is divided into four collections: (1) the Rig-veda, or love of praise (hymns); (2) the Sama-veda, or love of tunes (chants); (3) the Yajur-veda, or love of prayer, and (4) the Atharva-veda, or love of the Atharvans. Each collection is divided into three parts: (1) The sacred texts (mantra); (2) the ritual (Brahmana); and (3) the philosophical portion (Upanishads). The hymns of the Rig-veda are supposed to have been collected about 1000 B. C.

The Targums are paraphrastic translations of the Hebrew Scriptures into Aramaic, the only tongue generally known to the Jews in post-exilic times. No single Targum covers the whole of the Old Testament, but in one and another there are versions of all the books, except Ezra and Nehemiah. The Targums, long oral, were committed to writing in Christian times. The Onkelos Targum and the Targum ascribed to Jonathan ben Uzzill, the principal of the eighty disciples of Hillel, are the most famous.

Among the great monastic orders Benedictines is the general name given to the followers of St. Benedict (480-543), whose rule bound the monk to permanent abode in the monastery, chastity, renunciation of private property, daily and public solemnization of the divine office, a life of frugality and labor, and filial obedience to the abbot. The order has produced many literary works, but has taken little interest in politics. Though at one time very powerful, the membership today does not exceed eight hundred.

The Tabernacle was the portable tent in which the Ark of the Covenant was conveyed, and as such the sanctuary of Israel. It seems to have been superseded by a more permanent building at Shiloh before David's time. In Roman Catholic churches the name is given to the receptacle in which the consecrated elements of the Eucharist are retained. It is commonly a small structure of marble, metal or wood, placed over the high altar and appropriated exclusively to the reservation of the Eucharist, no other object whatever being allowed to be kept in it.

The word cabbala, which literally means "tradition," in itself might be used for any Jewish doctrine not explicitly contained in the Hebrew Bible since the text assumed its present form. The moral and ritual precepts of the Talmud are all ascribed to a tradition that can be traced step by step. But in its technical sense, the cabbala signifies a secret system of theology, metaphysics and magic prevalent among the Jews. The cabbalists taught a pantheistic doctrine, which came to them from the later and degenerate philosophies of Greece.

The Shakers are a religious sect, the official title of which is "The United Society of Believers in Christ's Second Appearing." They are an offshoot of the Quakers founded by Ann Lee, of Manchester, England, who with eight of her disciples came to America in 1774. Here the Shakers have founded eighteen societies, distributed over seven States. They practise celibacy and community of goods, and are firm believers in the doctrine of spiritualism. The wild, violent motions, from which they obtained their name, have given place to a regular dance to the singing of a hymn.

A synagogue is a Jewish place of worship. The origin of this institution is probably to be traced to the period of the Babylonian captivity, although tradition finds it in the patriarchal times. When, through Ezra's instrumentality, the ancient order of things was restored in Judea, synagogues were established in all the towns for the benefit of those who could not take part oftener than three times a year in the worship of the temple at Jerusalem, and a special ritual of readings and prayers was instituted. From the time of the Maccabees we find them even in all the villages.

Hospitallers, in the Roman Catholic Church, are charitable brotherhoods, founded for the care of the poor and of the sick in hospitals. They follow for the most part the rule of St. Augustine, and add to the ordinary vows of poverty, chastity and obedience, that of self-dedication to the particular work of their order. The Knights of St. John of Jerusalem and the Teutonic Knights were both originally hospitallers. The Knights Hospitallers of the Holy Spirit were founded at Montpellier in 1198 by Guy of Montpellier, and the hospitallers of Our Lady of Christian Charity at Paris in the end of the thirteenth century by Guy de Joinville. And numerous similar orders have been established since then.

There is no date from beginning to end in the Bible. It comprises some sixty documents, and is supposed to have been written by about forty men; fifty-four miracles are recorded in the Old and fifty-one in the New Testament; total, one hundred and five. The shortest verse in the Old Testament is "Remember Lot's wife." There is one in the New Testament shorter, *i.e.*, John xi, 35, equaled in words, though not in letters, by Thessalonians v, 16, "Rejoice evermore." Then there are two chapters in the Bible alike verbatim, and one book, Esther, in which the Deity is not mentioned.

The vigil was originally the watch kept, with public prayer on the night before a feast, traceable in the very earliest centuries, and is one of the usages against which Vigilantius inveighs, and which Jerome vindicates in his reply, though he admits the abuses that often accompanied it, and which ultimately brought about its suppression. The old observance survives in the Roman Church now only in the matins and lauds and the midnight mass before Christmas, and the term is applied to the day and night preceding a feast. The "watch night" service at New Year's is analogous.

The Society of Friends or Quakers was founded in 1624 by George Fox, a shoemaker, of Drayton, in Leicestershire. They believe in the main fundamental principles of what is called "Orthodox Christianity," but they express their religious creed in the very words of the New Testament Scripture and each member has the liberty of interpreting the words. Their main specialty is the belief of "the Light of Christ in man," and hence they entertain a broader view of the Spirit's influence than other Christians. In morals, propriety of conduct, good order, and philanthropy, the Quakers are a pattern society.

The Tunkers, by corruption *Dunkards* (but by themselves called "the Brethren"), is a religious sect found chiefly in Pennsylvania, Maryland, Virginia, Ohio, Indiana, Illinois, Iowa, Missouri, Nebraska and Kansas. Altogether they number nearly one hundred thousand, and are almost confined to the United States, although small bodies exist in Denmark and Sweden. Yet the sect had its birth in Germany, being indeed a child of the Pietist movement of the seventeenth century; but betweeen 1719 and 1729 all the members, harassed and persecuted at home, had, on Penn's old invitation, removed to Pennsylvania and settled about Germantown and Philadelphia, from whence they gradually spread southward and westward. In their creed the Brethren are thoroughly evangelical.

The Gutenberg (? Schöffer) Bible is the earliest book printed in movable metal type. It contains no date, but a copy in the "Bibliothèque Mazarine," formed in 1648 for the Cardinal Mazarin by G. Naudé, and given to the public in 1688, contains the date of the illuminator Cremer, 1456, so that the Bible must have been printed before that date. Only seven copies in vellum exist, but there are known to be twenty-two copies on paper, some of them very imperfect. In 1855 Mr. Quaritch, bookseller, of London (according to the *Methodist Recorder*) gave $19,500 for a copy at Sir J. Thorold's; certainly in 1887 he gave $13,250 for the copy in the library of the late Earl of Crawford. One was sold in 1873 for $17,000, and a copy was sold in 1889 for $10,000. A good vellum copy is worth $20,000. Of course it was called the Mazarine Bible because the copy in the Mazarine Library, Paris, gives the approximate date.

The term Apocrypha (a Greek word meaning "hidden", "secret") seems, when applied to religious books or writings, to have been used (1) for such as were suitable, not for the mass of believers, but for the initiated only; works containing the esoteric or recondite teaching of the faith or sect; (2) works the date, origin, and authorship of which were unknown or doubtful; (3) works which claimed to be what they were not, were spurious or pseudepigraphic. When the Apocrypha is spoken of, the Apocrypha of the Old Testament is generally meant. Another large group may be called the apocryphal books of the New Testament.

The Vulgate is the authorized translation of the Scriptures into Latin in use in the Roman Catholic Church. Before the end of the fourth century the *Vetus*, or old Latin version, called also the *Itala* (because in use in Italy), had become exceedingly corrupt, and in 382, Jerome, at the request of Pope Damasus, undertook to revise and correct this version. The Gospels were completed in 383, and the whole New Testament soon after; and this revision of the old version is the present text of the Vulgate New Testament. The official edition of the authentic Vulgate now in use in the Roman Catholic Church is that published by Clement VIII. in 1592.

The Trappists are a religious order founded in 1140 in Normandy by Rotrou, Compte de Perche. It was refounded by Abbé de Rancé in 1636. It is a reformed Benedictine order. The female order, called Trappistines, was instituted 1822. When driven out of France in 1791 the Trappists went to Switzerland and built the monastery called *Val-Sainte*, which was suppressed in 1811. Fifty-nine monks of La Trappe migrated from England to France in 1817 and settled in La Loire Inférieure. In 1822 the Trappists had sixteen houses in France. Their chief monastery was burnt to the ground in August, 1871. They have several houses in the United States.

Under the name of breviary Roman Catholics understand the book which contains all the ordinary and daily services of their church except (*a*) those connected with the celebration of the Eucharist, which are contained in the *Missal*, and (*b*) those for special occasions, such as baptisms, marriages, ordinations, funerals, etc., which are contained in the *Ritual* or *Pontifical*, according as they fall within the sphere of ordinary priests or of bishops. In the Established Church of England, therefore, the breviary would be exactly represented by a prayer-book containing, after the preface, tables, etc., the morning and evening prayer, litany, Athanasian creed, collects, psalter and all the lessons for every day in the year, with the addition of a complete set of hymns for the different occasions.

Theosophy is a name often applied to the systems of the speculative mystics of the mediæval and later times, as Eckhart, Böhn, Schelling and others. The term is now applied to the tenets of the Theosophical Society, founded at New York (1875) by Colonel Olcott and Madame Blavatsky (*d.* 1891), an American Russian. The search after divine knowledge, the investigation of the powers of man and of the hitherto unexplained laws of nature, the study of Eastern philosophy, and the establishment of a universal brotherhood, are some of the objects which it sets before itself. The most striking tenet of theosophy to outsiders is that which asserts that man is possessed of hitherto undeveloped powers over nature, in which respect it has affinities with mediæval Rosicrucianism and modern Spiritualism.

The Holy Alliance was a league formed in 1816 after the fall of Napoleon by the sovereigns of Russia, Austria and Prussia, whereby they pledged themselves to rule their peoples like fathers of families, and to regulate all national and international relations in accordance with the principles of Christian charity. But the alliance was made in actual fact a means of mutual encouragement in the maintenance of royal and imperial absolutism, and an instrument for suppressing free institutions and checking the aspirations for political liberty struggling into realization amongst the nations of the Continent. The league died a natural death after the lapse of a few years.

Wakes and lyke-wakes are very different things. A *lyke* or *liche* wake is a watching of the dead body (Ang.-Sax. *lic*) all night by the friends and neighbors of the deceased. It used to be a scene of revelry and mourning, the object being to watch the body from being interfered with by evil spirits. The other "wake" is about equal to "vigil," and every church had its wake on the anniversary of the saint. A religious service was given, but, as the crowd became great, hawkers and minstrels assembled, and the wake became a fair, held in the churchyard. In 1285 Edward I. forbade fairs to be held in churchyards, but the practice continued to the time of the Reformation.

Among the Jews the Talmud is a book held in high veneration, containing the *Mishna*, or oral law, and the *Gemara*, or commentary on the Mishna. There are two forms. or editions of the Talmud. (1) the Palestinian (commonly called the Jerusalem Talmud) completed about the middle of the fifth century and (2) the Babylonian Talmud completed towards the end of the sixth century. The latter is the larger and more valuable of the two. The Talmud is divided into *Halaka*, or legal part, and *Hagada*, or legendary part. The Halaka still rules Jewish life, especially in regard to dietary laws, marriages and festivals, and is the authoritative text-book of all rabbinic tribunals.

The Flagellants were fanatics who appeared at sundry times in Europe, and marched about in procession along the streets and public roads to appease the wrath of God. They marched two and two, singing dolorous hymns, mingled with groans, and every now and then stopped to whip each other with scourges to "atone for the sins of the people." They first appeared in the eleventh century under St. Peter Damian; again in 1268, when Reinier, a Dominican, formed them into a sect; again in 1349, when Germany was attacked with the pestilence called the Black Death; again in 1574, when Henri III. of France joined the sect. They still exist in Italy, France, Mexico and New Mexico, but their number is small.

The natives of Botocudes, one of the hottest regions of the earth, believe that heaven will be a land of cool streams and shady groves entirely cleared of all underbrush and cacti! All desert-dwellers, it is said, die expecting to awake in a wooded land supplied bountifully with cold water. Natives of the frozen north have paradise pictured as a land of warm sunshine, with glowing fires overhung with pots of boiling whale's blubber, and easeful couches of fur scattered here and there. The Caroline islanders, who are passionately fond of liquor, but who are in mortal dread of breaking their necks by falling from one of the millions of cliffs with which their islands abound, believe that paradise will be a land as level as a floor, where one can get drunk and not be in constant dread of cracking his cervical vertebræ.

The Catholic sisterhood known as Beguines was organized in the Netherlands in the twelfth century. They are still extant in Germany, but there is at Ghent the noted Béguinage of St. Elizabeth, with seven hundred sisters, who live in a separate quarter of the town in one hundred and three little brick-built cottages, with eighteen convents and two churches, arranged in streets and squares within a common wall, open to the visits of strangers. Living here a life of retirement and piety, the Beguines, in their simple dark dresses, go out as nurses to the hospitals and perform other acts of kindness among the poor. Though they are under no monastic vow, it is their boast that none is known to have quitted the sisterhood.

The Society of Jesus, or Jesuits, was founded by Ignatius Loyola, and confirmed by Paul III. in 1540. It was monarchical in its constitution and secular, while all other Catholic societies are more or less democratic and regular. The head of the society is called the General, or *Præpositus Generalis*, and holds his office for life. This General has absolute command over the whole society, and from his decisions there is no appeal. The four objects of the society are: (1) the education of youth; (2) the education of others by preaching, etc.; (3) the defense of the Catholic faith against all heretics and unbelievers, and (4) the propagation of the Catholic faith among the heathen. The Jesuits wear no monastic garb, but dress like any other of the "secular clergy," and live in no religious house, but in private dwellings.

Candlemas is an ecclesiastical festival observed on 2d February in honor of the Purification of the Virgin Mary, when she presented the infant Jesus in the temple. The great feast of expiation and purification (*Februa*) in ancient Rome was held on the 15th of February. Its institution as a Christian festival took place in the reign of Emperor Justinian in 541 or 542. A principal part of the celebration is a procession of light-candles—hence the name. There is a tradition all over Christendom to the effect that a fine Candlemas portends a severe spring. Sir Thomas Browne in his *Vulgar Errors* quotes a Latin distich expressive of this idea. In Scotland the prognostication is expressed in the following distich:

If Candlemas is fair and clear.
There 'll be twa winters in the year.

The Wahabees is the name of a reforming Mahommedan sect founded by Abd-el-Wahhab (1691-1787), a renowned Oriental scholar of the province of Nejd, in Arabia, who prohibited to his followers the use of intoxicating liquors and tobacco, and reasserted the primitive doctrine and practice of the Koran. Subjected to persecution, the Wahabees appealed to the sword, and acquired, in addition to the character of a reforming religious sect, that of a native Arabian political party. At one time their power extended over almost the whole of Arabia, Mecca being conquered in 1803, and Medina in 1804. The Wahabees' power was for a time broken by Mehemet Ali, of Egypt, and his son, Ibrahim Pasha (acting for the Ottoman Porte), and the Wahabees' chief was beheaded (December 19, 1818), in the public square in front of St. Sophia, Constantinople; but the empire of the Wahabees was speedily re-established, with Nejd for its nucleus, and at the present day extends, a well-organized and strong independent state of Arabia, in a broad belt across the center of the peninsula, from the Red Sea to the Persian Gulf, the population being estimated at four millions. After 1823, for many years, the Wahabees gave trouble in India.

The societies formed to distribute the Holy Scriptures are called Bible societies. The following are the names of the chief societies, their nationality, date of foundation, and approximate total issue of copies(in whole or in part) of the Bible: England, British and Foreign, 1804 (due to the initiative of a Welsh clergyman), translated into some three hundred different languages, 100,000,000; Scotland, National, 1861 (from union of older soc., as the Edinburgh, 1809), 6,000,000; Ireland, Hibernian, 1806, 5,000,000; United States 1816, 40,000,000; France, two societies f. 1818 and 1833; Germany, Prussian, 1814; Switzerland, Basle, 1804; Russian, 1826, suppressed, but revived 1831; Sweden, 1808; Norway, 1816; Netherlands, 1815.

The Kaaba, or "Caaba," was taken possession of by Cossai about 455, and was restored in 1630 by the Sultan Mustapha. The word means "the square house," and it designates a stone building in the great mosque at Mecca. Next the silver door is the famous Black Stone, "Dropped from Paradise." It was originally white, but the sin of the world has turned it black. In pilgrimages the devotee walks round the Kaaba seven times, and each time he passes the stone either kisses it or lays his hand thereon. According to Arabian legend Adam, after his expulsion from the garden, worshipped Allah on this spot. A tent was then sent down from heaven, but Seth substituted a hut for the tent. After the flood Abraham and Ishmael rebuilt the Kaaba.

By infallibility is meant entire exemption from liability to error when the pope speaks *ex cathedrâ*. The dogma of papal infallibility was promulgated by the Vatican Council in 1870. As adopted by the Council it is thus defined: "We teach and define that it is a dogma Divinely revealed, that the Roman pontiff, when he speaks *ex cathedrâ*, that is, when in discharge of the office of pastor and doctor of all Christians, by virtue of his supreme authority, he defines a doctrine regarding faith and morals to be held by the universal Church, by the Divine assistance promised him in blessed Peter is possessed of that infallibility with which the Divine Redeemer willed that His Church should be endowed for defining doctrines regarding faith or morals; and that, therefore, such definitions of the Roman pontiffs are irreformable of themselves and not by consent of the Church."

The Waldenses, or Vaudois, is a sect inhabiting the valleys of the Cottian Alps, in Northern Italy. It was founded by Peter Waldo (1170), a rich merchant of Lyons, who sold his goods and gave the money to the poor, and then went forth as a preacher of the doctrine of Christ from a translation of the New Testament made into Provencal. The preaching of the Waldenses led to collision with the ecclesiastical authorities, and they were formally condemned by the Lateran Council of 1215. Persecution increased, and the Waldenses, originally an esoteric society within the Church, withdrew altogether from its ministrations, and appointed ministers of their own, election taking the place of ordination. By the end of the thirteenth century they were found in France, Italy, Spain and Germany; but their numbers were greatly reduced, and their limits circumscribed, by persecution on the one hand, and the general movement of Protestantism at the Reformation on the other. They have, at present, about forty churches, with four thousand members.

THE SEVEN BIBLES OF THE WORLD

Are the Koran of the Mahommedans, the Eddas of the Scandinavians, the Try Pitikes of the Buddhists, the Five Kings of the Chinese, the Three Vedas of the Hindoos, the Zendavesta, and the Scriptures of the Christians. The Koran is the most recent of these seven Bibles, and not older than the seventh century of our era. It is a compound of quotations from the Old and New Testaments, the Talmud, and the Gospel of St. Barnabas. The Eddas of the Scandinavians were first published in the fourteenth century. The Pitikes of the Buddhists contain sublime morals and pure aspirations, and their author lived and died in the sixth century before Christ. There is nothing of excellence in these sacred books not found in the Bible. The sacred writings of the Chinese are called the Five Kings, king meaning web of cloth, or the warp that keeps the threads in their place. They contain the best sayings of the best sages on the ethico-political duties of life. These sayings cannot be traced to a period higher than the eleventh century B. C. The Three Vedas are the most ancient books of the Hindoos, and it is the opinion of Max Muller, Wilson, Johnson, and Whitney that they are not older than the eleventh century B. C. The Zendavesta of the Persians is the grandest of all the sacred books, next to our Bible. Zoroaster, whose sayings it contains, was born in the twelfth century B. C. Moses lived and wrote his Pentateuch in the fifteenth century B. C., and, therefore, has a clear margin of three hundred years older than the most ancient of the sacred writings.

NATIONALITY OF THE POPES.

The various nations of Europe are represented in the list of Popes as follows: English, 1; Dutch, 1; Swiss, 1; Portuguese, 1; African, 2; Austrian, 2; Spanish, 5; German, 6; Syrian, 8; Greek, 14; French, 15; Italian, 197. Eleven Popes reigned over 20 years; 69, from 10 to 20; 57, from 5 to 10; and the reign of 116 was less than 5 years. The reign of Pius IX. was the longest of all, the only one exceeding 25 years. Pope Leo XIII. is the 258th Pontiff. The full number of the Sacred College is seventy, namely: Cardinal Bishops, 6; Cardinal Priests, 50; Cardinal Deacons, 14. At present there are 62 Cardinals. The Roman Catholic hierarchy throughout the world, according to official returns published at Rome in 1884, consisted of 11 Patriarchs and 1,153 Archbishops and Bishops. Including 12 coadjutor or auxiliary bishops, the number of Roman Catholic archbishops and bishops now holding office in the British Empire is 134. The numbers of the clergy are approximate only.

FATE OF THE APOSTLES.

The following brief history of the fate of the Apostles may be new to those whose reading has not been evangelical:

St. Matthew is supposed to have suffered martyrdom or was slain with the sword at the city of Ethiopia.

St. Mark was dragged through the streets of Alexandria, in Egypt, till he expired.

St. Luke was hanged upon an olive tree in Greece.

St. John was put into a caldron of boiling oil at Rome and escaped death. He afterward died a natural death at Ephesus in Asia.

St. James the Great was beheaded at Jerusalem.

St. James the Less was thrown from a pinnacle or wing of the temple and then beaten to death with a fuller's club.

St. Philip was hanged up against a pillar at Hieropolis, a city of Phrygia.

St. Bartholomew was flayed alive by the command of a barbarous king.

St. Andrew was bound to a cross, whence he preached unto the people till he expired.

St. Thomas was run through the body with a lance at Coromandel, in the East Indies.

St. Jude was shot to death with arrows.

St. Simon Zealot was crucified in Persia.

St. Matthias was first stoned and then beheaded.

St. Barnabas was stoned to death by Jews at Salania.

St. Paul was beheaded at Rome by the tyrant Nero.

THE NAME OF GOD IN FORTY-EIGHT LANGUAGES.

Hebrew	Eleah, Jehovah	Olotu tongue	Deu
Chaldaic	Eiliah	German and Swiss	Gott
Assyrian	Eleah	Flemish	God
Syrian and Turkish	Alah	Dutch	God
Malay	Alla	English	God
Arabic	Allah	Teutonic	Goth
Languages of the Magi	Orsi	Danish and Swedish	Gud
Old Egyptian	Teut	Norwegian	Gud
Armenian	Teuti	Slav	Buch
Modern Egyptian	Teun	Polish	Bog
Greek	Theos	Polacca	Bung
Cretan	Thios	Lapp	Jubinal
Aedian and Dorian	Ilos	Finnish	Jumala
Latin	Deus	Runic	As
Low Latin	Diez	Zemblian	Fetiza
Celtic Gaelic	Diu	Pannonian	Istu
French	Dieu	Hindoostanee	Rain
Spanish	Dios	Coromandel	Brama
Portuguese	Deos	Tartar	Magatai
Old German	Diet	Persian	Sire
Provincial	Diou	Chinese	Prussa
Low Breton	Done	Japanese	Goezer
Italian	Dio	Madagascar	Zannar
Irish	Dia	Peruvian	Puchecammae

THE SALVATION ARMY.

The Salvation Army is a missionary organization set on foot in England by William Booth, who was called the "General" of the army. The plan of operation is for a company to march about cities, towns, and villages, singing popular sacred songs and speaking between whiles for about five minutes. The army has also a large number of religious periodicals and small books. Mr. Booth was a minister of the Methodist New Connexion, which he left in 1861 to begin "revivalistic services" in a tent in Whitechapel. In 1865 his little band of followers called themselves "The East London Christian Revival Society," afterwards changed to "The Christian Mission." In 1869 the Mission made expeditions to provincial towns. Lastly, in 1873, the name was changed to "The Salvation Army." Their literary organ called "*The Christian Mission*" first appeared monthly in 1874. In 1879 it was called "*The Salvationist*" and in the same year its title was changed into "*The War Cry.*" Its flag now flies in thirty-four countries or colonies, where, under the leadership of 11,-

149 men and women, whose lives are entirely given up to the work, it holds 49,800 religious meetings every week. It has 27 weekly newspapers and 15 magazines, with a total annual circulation of 49,015,044. It has accumulated $4,015,085 worth of property, pays rentals amounting to $1,100,000 per annum for its meeting places, and has a total income from all sources of $3,750,000. The Army literature is issued in fifteen languages and services are held in 29 languages. The number of local officers, bandsmen and office employes is 23,540. The United States branch was established in 1880. There are now in this country 536 corps and outposts and 1,487 officers, with 15,000 adherents. The value of the property held by the United States wing of the Army is $175,000.

WORSHIP OF THE HUMAN FAMILY.

The following estimates, by M. Fournier de Flaix, are the latest that have been made by a competent authority. (See Quarterly of the American Statistical Association for March, 1892.)

CREEDS.	No. of Followers.	CREEDS.	No. of Followers.
1 Christianity.....	477,088,158	5 Buddhism..	147,900,000
2 Worship of Ancestors and Confucianism	256,000,000	6 Taoism.....	43,000,000
3 Hindooism	190,000,000	7 Shintoism.....	14,000,000
4 Mahommedanism	176,834,372	8 judaism....	7,056,000
		9 Polytheism.....	117,681,669

CHRISTIANITY.

CHURCHES.	Total.	CHURCHES.	Total.
Catholic Church.....	230,866,533	Armenian Church.....	1,600,000
Protestant Churches.....	143,237,625	Nestorians...	80,000
Orthodox Greek Church.	98,016,000	Jacobites.....	70,000
Church of Abyssinia.....	3,000,000		
Coptic Church..	120,000		477,080,158

THE GREAT COUNCILS.

A council or synod, is an assembly of ecclesiastics met to regulate doctrine or discipline. We first hear of such assemblies during the Montanist controversy, about 150 A. D. Œcumenical councils are convoked from all parts of Christendom, and claim to regulate the affairs of the whole church. Other synods have represented the East and West respectively. Patriarchal, national, and primatial councils represent a whole patriarchate, a nation, or the several provinces subject to a primate, while the bishops and other dignitaries of a province constitute a provincial; the clergy of a diocese under the presidency of the bishop, a diocesan council. Mixed councils during the middle ages dealt with civil as well as ecclesiastical affairs, and were composed of secular persons as well as churchmen. Sometimes, but not always, the lay and ecclesiastical members voted in separate chambers.

The Greek Church recognizes seven general councils—viz.: (1) The first of Nicæa, 325 A. D.; (2) the first of Constantinople, 381; (3) Ephesus, 431; (4) Chalcedon, 451; (5) second of Constantinople, 553; (6) third of Constantinople, 680; (7) second of Nicæa, 787. To these Roman Catholics add: (8) fourth of Constantinople, 869; (9) first Lateran, 1123; (10) second Lateran, 1139; (11) third Lateran, 1179; (12) fourth Lateran, 1215;

(13) first of Lyons, 1245; (14) second of Lyons, 1274; (15) Vienne, 1311; (16) Constance, 1414-18, of which Ultramontanes accept only the decrees passed in sessions 1442-45 inclusive and such decrees of earlier sessions as were approved by Martin V.; (17) Basel, 1431 and the following years, œcumenical according to Ultramontanes only till the end of the twenty-fifth session, and even then only in respect of such decrees as were approved by Eugenius IV.; (18) Ferrara-Florence, 1438-42, really a continuation of Basel; (19) fifth Lateran, 1512-17; (20) Trent, 1545-63; (21) Vatican, December 8, 1869, to July 18, 1870, and still unfinished.

MORMONS AND THEIR "BOOK."

The Mormons or Latter Day Saints, are a religious sect founded in 1830 by Joseph Smith, of Vermont, who declared that he received his mission from an angel in 1823. This angel told him where to find certain plates containing the records of the ancient American prophets. These plates were about as thick as tin, and held together by three rings running through them all. The character employed was "Reformed Egyptian," and with the plates were deposited the "Urim and Thummim," or spectacles for deciphering them. The plates say that the Americans were a colony from the Tower of Babel at the confusion of tongues. The Mormonites receive their name from the prophet Mormon who wrote the plates called "The Book of Mormon." There are in the United States 856 organizations with 166,125 communicants in the Mormon Church. Polygamy so long practiced has given place to monogamy.

A notable publication was the "Book of Mormon" claiming to be the "revealed" history of America from its first settlement by a colony dispersed at the confusion of tongues to the fifth century of the Christian Era. Joseph Smith professed that this information was obtained by him in September, 1827, in a volume of metal plates engraved in reformed Egyptian, and discovered by revelation "on the west side of a hill, not far from the top, about four miles from Palmyra, in the county of Ontario." As Smith could not decipher the writing, a pair of magic spectacles, which he called his Urim and Thummim, were given to him, and one Oliver Cowdery wrote down on paper what Smith professed to translate. It is said that the "Book" is a mere plagiary of a MS. romance by the Rev. Solomon Spalding in 1816. Certainly the plates and spectacles have disappeared.

CREEDS OF THE PRESIDENTS.

Washington, Garfield and Harrison were the only Presidents who were church members, but all, one excepted, were men who revered Christianity. Adams married a minister's daughter, and was inclined to Unitarianism. Jefferson was not a believer, at least while he was Chief Magistrate. Madison's early connections were Presbyterian. Monroe is said to have favored the Episcopal Church. John Quincy Adams was like his father. Jackson was a Presbyterian and died in the communion of that church. Van Buren was brought up in the Reformed Dutch Church, but afterwards inclined to the Episcopal Church. Harrison leaned toward the Methodist Church, and Tyler was an Episcopalian. Polk was baptized by a Methodist preacher after his term of office expired. Taylor was inclined to the Episcopal communion. Fillmore attended the Unitarian Church, and Franklin Pierce was a member, but not a communicant, of a Congregationalist Church, at Concord. Buchanan was

a Presbyterian, as is also Benjamin Harrison. General Grant attended the Methodist Church, and President Garfield the Church of the Disciples. Grover Cleveland has worshipped with the Presbyterians.

RELIGIOUS BODIES IN THE UNITED STATES.

(ACCORDING TO REPORTS OF CENSUS OF 1890.)

DENOMINATIONS.	ORGANIZATIONS.	CHURCH EDIFICES.	COMMUNICANTS.
Adventists	1,756	744	60,491
Baptists	41,629	35,093	3,594,093
(River) Brethren	111	69	3,427
(Plymouth) Brethren	232	4	6,408
Catholics	10,260	8,799	6,255,033
Catholic Apostolic	10	3	1,394
Chinese Temples	47	47	.....
Christadelphians	63	4	1,277
Christians	1,424	1,097	103,792
Christian Missionary Association	13	11	754
Christian Scientists	221	7	8,724
Christian Union	294	183	18,214
Church of God (Winnebrenarian)	479	338	22,511
Church Triumphant (Schweinfurth)	12	.....	384
Church of New Jerusalem	154	87	7,095
Communistic Societies	37	45	4,401
Congregationalists	4,868	4,736	512,771
Disciples of Christ	7,246	5,324	641,051
Dunkards	969	1,018	73,845
Evan. Association	2 310	1 699	133,313
Friends	1,056	995	107,208
Friends of the Temple	4	5	340
Ger. Evan. Protestant	52	52	36,156
German Evan. Synod	870	785	187.432
Jewish Congregations	533	301	130,496
Latter-Day Saints	856	388	166,125
Lutherans	8,595	6,709	1,231,072
Mennonites	550	405	41,541
Methodists	51,503	46,150	4,568,662
Moravians	94	114	11.781
Presbyterians	13,476	12,452	1,278.332
Episcopalians	5,102	5,103	540,509
Reformed	2,181	2,079	309,458
Salvation Army	329	27	8,662
Schwenkfeldians	4	6	306
Social Brethren	20	11	913
Society for Ethical Culture	4	.....	1,064
Spiritualists	334	30	45,030
Theosophical Society	40	1	695
United Brethren	4,526	3,419	225,158
Unitarians	421	424	67,749
Universalists	956	832	49,224
Unassociated congregations	150	103	12,228
Grand totals	163,786	139.928	20.489,697

WHAT IS A STATE RELIGION?

A state religion and a national religion are two different things. A nation may, with more or less universal concurrence, accept a certain type of religion—as the people of the United States for the most part accept Christianity—yet they may not commit to their government the task either of representing officially or of maintaining financially their

religion. In that case it is a national but not a state religion. Wherever, on the other hand, we witness either establishment or endowment committed to the government—even if, as in Ireland till 1869, the religion thus favored is very far from being national—there we have the spectacle of a state religion.

AN OMITTED PSALM.

Your Bible, if it is of the regulation sort, closes the Book of Psalms with the 150th. In the Greek Bible, however, there is another entitled "A Psalm of David After He Had Slain Goliath." Athanasius praises it very highly in his "Synopsis of the Holy Scriptures." It was versified by Apollinarius Alexandrius, A. D. 360, and a Latin translation of it may be found in the works of Fabricus, Vol. II., pp. 995-997. The translation below is by Baring-Gould, the well-known antiquarian.

PSALM CLI

1. I was small among my brethren; and growing up in my father's house, I kept his sheep.
2. My hands made the organ and my fingers shaped the psaltery.
3. And who declared unto my Lord. He, the Lord, he heard all things.
4. He sent his angels and they took me from my father's sheep; he anointed me in mercy from his unction.
5. Great and goodly are my brethren, but with them God was not well pleased.
6. I went to meet the [giant] stranger; and he cursed me by all his idols.
7. But I smote off his head with his own drawn sword; and I blotted out the reproach of Israel.

RELIGION AS A SCIENCE.

A religion is a group or whole of religious phenomena—of religious beliefs, practices and institutions—so closely connected with one another as to be thereby differentiated from those of any other religion. Each religion has had a history, and its rise and spread, formation and transformations, as a religion, can only be truly traced by being historically traced. Also religions are historically connected, are related to one another, and have influenced one another, in ways which may be discovered, and can only be discovered, by historical research. Hence the History of Religions is also the history of religion, not an aggregation of the histories of particular religions, but a truly general history. Like the histories of art, industry, science, and society in general, it is found on examination to have been a process of development in which each stage of religion has proceeded gradually from antecedent factors and conditions. The precise nature of the development can only be ascertained by investigation of the history itself. No hypothesis of development should be assumed as a presupposition of such investigation. Naturalistic apriorism is as illegitimate in historical inquiry as theological or metaphysical apriorism. The history of religion is not only of great importance in itself, but indispensable to the right understanding of general history, of the history of art, of philosophy, etc. It has been studied with more zeal and success during the nineteenth century than in all the preceding ages. The history of religious beliefs is, of course, only a part of the history of religions. *It* is, however, distinguishable, although inseparable from it, and is often and conveniently designated Comparative Theology. It comprehends comparative mythology and the history of doctrines, myths being beliefs which are mainly the products of imagination and doctrines of reflection.

The Psychology of Religion, the History of Religions, and Comparative Theology are clearly distinct, and ought not to be confounded. At

the same time they are closely connected. They agree in that they are alike occupied with religion as an empirical fact. Hence they may be regarded as parts of a comprehensive science, to which it might be well to confine the designation "Science of Religions," instead of using it in the vague and ambiguous way which is so common. Thus understood, the Science of Religions may be said to deal with religion as a phenomenon of experience, whether outwardly manifested in history or inwardly realized in consciousness; to seek to describe and explain religious experience so far as it can be described and explained without transcending the religious experience itself. Its students have only to ascertain, analyse, explain and exhibit experienced fact. Were religion a physical fact, to study it merely as a fact would be enough. The astronomer, the naturalist, the chemist have no need to judge their facts; they have only to describe them, analyze them, and determine their relations. But it is otherwise with the students of religion, of morality, of art, of reasoning. They soon come to a point where they must become judges of the phenomena and pronounce on their truth and worth. Experience in the physical sphere is experience and nothing more; experience in the spiritual sphere is very often experience of what is irreverent and impious, immoral and vicious, ugly and erroneous, foolish or insane. Has the mind simply to describe and analyze, accept and be content with such experience? Even the logician and the æsthetician will answer in the negative, will claim to judge their facts as conforming to or contravening the laws of truth and the ideals of art. Still more decidedly must the moralist and the student of religion so answer. Religion, then, is not completely studied when it is only studied historically. Hence it must be dealt with by other sciences or disciplines than those which are merely historical.

All the particular theological sciences or disciplines treat of particular aspects of religion or of religion in particular ways. Their relationships to one another can only be determined by their relationship to it. They can only be unified and co-ordinated in a truly organic manner by their due reference to it. When religion is studied not merely in particular aspects and ways, but in its unity and entirety, with a view to its comprehension in its essence and all essential relations, it is the object of the Philosophy of Religion. Although a distinct and essential department of philosophy, and the highest and most comprehensive theological science, the philosophy of religion could only have appeared in an independent and appropriate form when both philosophy and theology were highly developed.

THE TESTIMONY OF LITERATURE.

To be of no church is dangerous. Religion, of which the rewards are distant and which is animated only by Faith and Hope, will glide by degrees out of the mind, unless it be invigorated and reimpressed by external ordinances, by stated calls to worship and the salutary influence of example.—*Johnson.*

The writers against religion, whilst they oppose every system, are wisely careful never to set up any of their own.—*Burke.*

A little philosophy inclineth a man's mind to atheism, but depth of philosophy bringeth men's minds about to religion.—*Bacon.*

JOTTINGS IN SCIENCE.

Go abroad
Upon the paths of nature, and when all
Its voices whisper, and its silent things
Are breathing the deep beauty of the world,
Kneel at its simple altar.
—N. P. WILLIS.

ANSWERS TO MANY QUERIES.

Newton was born in 1642.

The word philosophy means "I love wisdom."

Astrology rightly means the science of the stars.

Galileo constructed the first refracting telescope.

The term science comes from the Latin *scio*, I know.

At the equator the limit of perpetual snow is 14,400 feet.

Perigee is that point in the moon's orbit nearest the earth.

Torricelli, a pupil of Galileo, invented the barometer in 1643.

The principle of the pendulum was discovered by Galileo in 1583.

Among all rude nations the healing art is practiced by the priests.

The Leyden Jar was invented by Muschenbrock, of Leyden, in 1746.

Perihelion is that point of a planet's orbit in which it is nearest the sun.

The first balloon ascent was made in 1783 by Joseph and Stephen Montgolfier.

Froebel reminds us that nature supplies the raw material, education is the manufacturer.

As physics means the science of matter, it is about synonymous with natural philosophy.

Aphelion is that point in the elliptical orbit of a planet which is most remote from the sun.

The inductive school of philosophy, on which modern science has been developed, began about 1624.

The horse-power of Niagara is three and one quarter million nominal, equal to ten million horses effective.

Three miles an hour is about the average speed of the gulf stream; at certain places, however, this speed is considerably increased.

Cuvier says: "In the exact sciences at least, it is the patience of a sound intellect, when invincible, which truly constitutes genius."

Satellites are small members of the solar system, taking the place of attendants of the larger planets, by which their motions are controlled.

On shipboard the term Binnacle is given to a wooden box or case containing the compass, together with a lamp and other necessary apparatus.

The crow flies at the rate of but twenty-five miles per hour. The sparrow hawk flies six times as far, or 150 miles, in the same length of time.

Rider Haggard makes a scientific error when in "King Solomon's Mines" he describes a lunar eclipse taking place at the new moon instead of at the full.

The Arctic whale never migrates to the southward as most species of whales do, because of its inability to live in the heated waters of the southern seas.

The carbon of the food, mixed with the oxygen of the air, furnishes fuel for the body, which evolves the heat in exactly the same way that a fire or candle does.

The smallest tree in Great Britain grows on the summit of Ben Lomond. It is the dwarf willow, which is mature when it attains the height of two inches.

Lightning is zig-zag because, as it condenses the air in the immediate advance of its path it flies from side to side in order to pass where there is the least resistance to its progress.

Generally speaking, we say that the curvature of the earth amounts to about seven inches to the statute mile; it is exactly 6.99 inches, or 7.962 inches for a geographical mile.

The sciences that have been educed from reason are called *abstract*, those that depend on cause and effect are *natural*, and those assumed to be complete are *exact* sciences.

Good clear ice, two inches thick, will bear men to walk on; four inches thick will bear horses and riders; six inches thick will bear horses and teams with moderate loads.

The normal temperature of man is about 98.5 degrees; of the snail, 76 degrees; oyster, 82 degrees; porpoise, 100 degrees; sheep, 104 degrees; hog, 105 degrees; chicken, 11 degrees.

To discover the weight of our earth, Cavendish makes it 5,480 times the weight of water, and the total weight to be 6,000,000,000,000,000,000,000 tons (*i. e.* 6,000,000 trillions).

The properties and use of the mariner's compass were known to the Chinese centuries ago. It was brought to Europe in the thirteenth century, and first used on the Mediterranean.

That fragile and paradoxical wonder, the "snow plant," which is found in the Sierra Nevada mountains, is pronounced by western botanists as probably our most remarkable plant.

One horse-power will raise 16½ tons per minute a height of twelve inches, working eight hours a day. This is about nine thousand nine hundred foot-tons daily, or twelve times a man's work.

A gray, green, or yellowish green sunset indicates rain. A red sunset means rain. A deep blue sky means fair weather. A growing whiteness, a storm. Unusually bright or twinkling stars mean rain.

Plants breathe through the "*stomata*," or breathing-pores in the leaves. In case the plant or tree is of the leafless variety the stem, which is also provided with *stomata*, performs the office of breathing.

In the manufactnre of air gas, steam is passed over petroleum or other rich mineral oil, which it volatilizes, and the resulting mixture burns brilliantly. The process is, however, expensive, and not much used.

When we speak of chemical affinity we mean the tendency to combine with one another which is exhibited by many substances; or to the force by which the substances constituting a compound are held together.

The elephant is given the credit of being the most long-lived, as well as the most intelligent of all animals. Cuvier says that there are instances of their having lived to beyond the age of three hundred years.

Professor Barnard's photograph of the milky way shows the existence of 500,000,000 suns, each supposed to be the center of a system of planets, where hitherto it was thought to contain only about 20,000,000 such suns.

A female codfish will lay 45,000,000 eggs during a single season. Piscatorial authorities say that were it not for the work of the natural enemies of fish, they would fill all the available space in the seas, rivers and oceans.

Snow appears white because it is an aggregation of an infinite number of minute crystals, each reflecting all the colors of the rainbow; these colors, uniting before they reach the eye, cause it to appear white to every normal eye.

Army worm is a name sometimes given to the grubs of a small black fly, very common in some European forests. In the United States the name is given to a voracious moth, common everywhere, which collects in large numbers.

One pair of rabbits can become multiplied in four years into one million two hundred and fifty thousand. They were introduced in Australia a few years ago, and now that colony ships six million rabbit skins yearly to England.

The nautical term "trade winds" applies to constant winds which blow at sea to the distance of about 30° on both sides of the equator. On the north of the equator they blow from the north-east, and on the south from the south-east.

Lead in the form of filings, under a pressure of two thousand atmospheres, or thirteen tons to the square inch, becomes compressed into a solid block, in which it is impossible to detect the slightest vestige of the original grain. Under a pressure of five thousand atmospheres it liquefies.

Below half a mile in depth the water of the ocean is intensely cold, remaining both winter and summer at a point only slightly above freezing. The contents of a trawl hauled up from the floor of the sea at the equator, will be found to include mud and ooze that is nearly freezing.

Simoom (Arab. *samûm*, fr. *samma*, he poisoned) is the designation of a hot, dry wind, laden with dust and sand, which prevails in Africa and Arabia, especially at the time of the equinoxes. It originates in the sand deserts of the interior. Called Sirocco in South Italy, and Solano in Spain.

Richard Proctor, the astronomer, said that when a novelist attempts to describe a scientific phenomenon, he should take care to be exact, for people pay more attention to the descriptions of the novel than to those of the scientific text-book.

We have sixty divisions on the dials of our clocks and watches, because the old Greek astronomer, Hipparchus, who lived in the second century before Christ, used the Babylonian system of dividing time, and that system being sexagesimal.

Tin, when compressed in powder, becomes solid under a pressure of ten tons on the square inch, zinc at thirty-eight tons, antimony at thirty-eight tons, aluminum at thirty-eight tons, bismuth at thirty-eight tons, and copper at thirty-three tons.

The volume of a portion of gas varies inversely as the pressure. Thus if we double the pressure, the gas will be reduced one-half; if we treble the pressure, the volume of gas will be reduced to one-third, and so on. This is the fact which physicists term Boyle's Law.

It is believed that whales often attain the age of four hundred years. The number of years these huge creatures have lived is ascertained by counting the layers of laminæ forming the horny substance known as "whalebone." These laminæ increase yearly, just as the "growths" do on a tree.

Scientists say that if the bed of the Pacific ocean could be seen it would disclose to view several mountains with truncated tops scattered over it. These mountains would be perfectly bare at their bases, and all around their tops they would be covered with a beautiful growth of coral polypi.

A camel has twice the carrying power of an ox; with an ordinary load of four hundred pounds he can travel twelve to fourteen days without water, going forty miles a day. Camels are fit to work at five years old, but their strength begins to decline at twenty-five, although they live usually till forty.

Should the earth collide with another world of equal bulk, it is claimed the heat generated would be sufficient to melt, boil and completely evaporize a mass of ice seven hundred times the bulk of both the colliding worlds—in other words, an ice planet one hundred and fifty thousand miles in diameter.

Scientists use the term Choke-damp (also called *after-damp* or *foul damp*), to describe the carbonic acid gas given off by coal which accumulates in coal mines, and may suffocate those exposed to it. It is distinguished from *fire-damp*, the marsh gas or light carburetted hydrogen which causes the explosions.

Our atmosphere which is a gaseous compound of oxygen and nitrogen surrounding the earth, is estimated to extend for a distance of forty-five miles from the globe. It exerts a pressure of fifteen pounds to the square inch on the surface of human and other bodies, but as the pressure is balanced inside and out no inconvenience is felt.

Heredity is the term applied to the transmission to the offspring of the characteristics, mental and physical, of the parent. Such peculiarities may be imparted by the mother or by the father. The study of heredity has in recent years been much developed by Haeckel, Herbert Spencer, Huxley, Darwin, Wallace, Galton, and others

When starch is carefully heated to 392° (200° C.), or until vapors arise from it, it becomes soluble in cold and hot water, and loses its gelatinous character; it also has the property, when viewed by polarized light, of turning the plane of polarization to the right; hence its name of dextrine. It is often used as a substitute for gum arabic.

According to geological computation, the minimum age of the earth since the formation of the primitive soils is 21,000,000 years—6,700,000 years for the primordial formations, 6,400,000 years for the primary age, 2,300,000 years for the secondary age, and 460,000 years for the tertiary age, and 100,000 since the appearance of man upon the globe.

Cosmos is a term used to denote the order and harmony of the universe. Originally used by Homer to denote "order" it was applied by Heraclitus and Anaxagoras to the divine order and arrangement of nature; by Plato to celestial and terrestrial order. It was further applied to the habitable world and the world generally as an orderly system.

In geography the basin of a river is the whole tract of country drained by that river. The line or boundary which separates one river-basin from another is called the watershed. By tracing these watersheds, the whole of a country or continent may be divided into a number of distinct basins; the basin of a lake or sea being made up of the basins of all the rivers that flow into it.

In Mercator's Projection the maps are so constructed that the lines of longitude are straight and not curved. This device of representing a globe in perspective on a flat surface is due to Edward Wright, an Englishman; but the chart so arranged by Wright was printed and published by Gerard Mercātor, a printer of maps in Flanders, who died at the age of eighty-two, in 1594.

Those who use pencils should know that "black lead" is but the popular name for plumbago, a mineral consisting chiefly of carbon, together with alumina, silica, lime, iron, etc. No lead whatever enters into its composition. It is employed in making pencils, to give a black gloss to iron grates, railings, etc., and to diminish the friction of belts, machinery and rifle cartridges.

An English rainmaker operating in India has an apparatus consisting of a rocket capable of rising to the height of a mile, containing a reservoir of ether. In its descent it opens a parachute, which causes it to come down slowly. The ether is thrown out in a fine spray, and its absorption of heat is said to lower the temperature about it sufficiently to condense the vapor and produce a limited shower.

The greatest known depth of the ocean is midway between the islands of Tristan d'Acunha and the mouth of the Rio de la Plata. The bottom was here reached at a depth of 46,236 feet, eight and three-fourths miles, exceeding by more than thirteen thousand feet the height of Mt. Hercules, the loftiest mountain in the world. The average depth of all the oceans is from two thousand to three thousand fathoms.

It is a rare thing to find a really lustrous pearl in an American oyster, but a great many such pearls are found in the common fresh-water mussel. The pearl-bearing mussel is distributed over a wide area in the United States, and extremely valuable mussel pearls have been found in New Jersey, Ohio, Tennessee and several other states. An occasional black pearl of some value is found in the native oyster.

The Davy lamp is a form of safety lamp for use in coal mines, invented by Sir Humphry Davy in 1815. In it the frame is surrounded with fine wire gauze, on the principle that flame will not pass through the holes, and so does not ignite the gas surrounding the lamp. George Stephenson invented a similar lamp, but both are now largely susperseded by the use of electric lights in mines.

With the aid of the great Lick telescope the astronomers in charge of that institution have made the startling discovery that one of the satellites of Jupiter is double—in other words, that what has heretofore been taken for a single moon is, indeed, two moons, a large and a small one, the lesser slowly revolving around the greater. Hereafter it will be proper to speak of the "twenty-one moons of the solar system."

The word comet is derived from the Greek *kome*, "hair," a title which had its origin in the hairy appearance often exhibited by the haze or luminous vapor, the presence of which is at first sight the most striking characteristic of the celestial bodies called by this name. The general features of a comet are—a definite point or nucleus, a nebulous light surrounding the nucleus, and a luminous train preceding or following the nucleus.

Nectar in flowers is not honey. This nectar is gathered by the tongue of the bee, and enters what is called the honey bag, from which it is regurgitated by the bee on its return to the hive, and deposited in the honey cell. Even then it is thin and watery, and does not become really honey until the watery parts have evaporated. In collecting the sweets the bees do not confine themselves wholly to flowers. They extract them also from fruits.

According to the theory of evolution, the lower animals develop into the higher animals, so that the larvæ of Ascidians (marine molluscoid) developed gradually into apes, and probably apes are only one link from man; but hitherto no trace of that link has been discovered, unless, indeed, it be in the Neanderthal skull found in the Rhine province of Russia, which seems to be between the skull of an ape and the skull of a human being.

Several meanings attach to the word Degree. (1.) The highest part of an unknown quantity in algebra. (2.) The three hundred and sixtieth part of a circle, as of the circumference of the earth, the length being sixty-nine and one-half miles at the equator.—*Academical D.* A distinction conferred by the various universities in recognition of proficiency in arts, medicine, law and science. There are three degrees: Bachelor, Master and Doctor.

The theory of gravitation is the law by which all atoms of matter are attracted one to another with a force directly proportional to the product of the two masses, and inversely as the square of their distances. The power of gravitation was noticed and speculated upon by the Greeks, and Seneca noticed the attractive power of the moon over the ocean. Kepler investigated the subject of gravitation in 1615. Galileo (*c.* 1633) demonstrated the theory of gravitation. A system of gravitation was also projected by Hooke at the latter part of the seventeenth century. To Newton, however, is ascribed the honor of proving mathematically the truth of the theory in his great work the "Principia," published 1687. Newton's laws have since been carried out to great perfection in their application to complicated problems of astronomical and physical science.

Telepathy is a word coined about 1886 from the Greek to express the supposed power of communication between one mind and another by means unknown to the ordinary sense-organs. Some members of the Psychical Research Society believe that they have established the fact that such a power does exist in the material universe, and have attempted to turn the assumption to account in the explanation of certain unexplained natural phenomena.

The blowpipe is a small instrument used in the arts for glass-blowing and soldering metals, and in analytical chemistry and mineralogy for determining the nature of substances by the action of an intense and continuous heat. Its utility depends on the fact, that when a jet of air or oxygen is thrown into a flame, the rapidity of combustion is increased, while the effects are concentrated by diminishing the extent or space originally occupied by the flame.

The analysis of the spectrum, which is an image of white light passed through a prism, and refracted and decomposed into various colors of light is what scientists mean by the term *spectrum analysis*. The light of the sun and stars has been examined by spectrum analysis, and these heavenly bodies have thus been shown to contain some of the same elements as those which exist on the earth. Spectrum analysis has also been usefully employed in physiology and pathology, and for the discovery of metals, etc.

One of the most wonderful discoveries in science that have been made, is the fact that a beam of light produces sound. A beam of sunlight is thrown through a lense on a glass vessel that contains lampblack, colored silk or worsted, or other substances. A disk, having slits or openings cut in it, is made to revolve swiftly in this beam of light, so as to cut it up, thus making alternate flashes of light and shadow. On putting the ear to the glass vessel strange sounds are heard so long as the flashing beam is falling on the vessel.

A term which has been occasionally abused in English popular writing is biology, more especially in the absurd word *electro-biology*, which at one time threatened to take root in popular usage, and has even by some scientific writers been confused with general physiology, or a special province of it. Yet the established and only legitimate meaning of biology is its literal one, that of the science of life—ie. the science which seeks to classify and generalize the vast and varied multitude of phenomena presented by and peculiar to the living world.

The Stoics were a school of philosophers who followed immediately after Plato and Aristotle. It was founded by Zeno of Citium (340–260 B. C.), who taught in the painted portico (*Stoa poikile*) on the north side of the market place at Athens. The Stoics taught that God is the soul of the world, and that man's supreme good consists in living in accordance with the perfect life of the universe. For two hundred years all the best of the Romans were Stoics.

St. Elmo's Fire is the popular name of an electric appearance sometimes seen, especially in southern climates during thunder-storms, of a brush or star of light at the tops of masts, spires, or other pointed objects. It is also observed at the tops of trees, on the manes of horses, and occasionally about human heads. It is similar in kind to the luminous glow seen at the point when a lightning-rod is working imperfectly, or when there is any very rapid production of electricity.

In the human body there is said to be more than two million perspiration glands communicating with the surface by ducts, having a total length of some ten miles. The blood contains millions of millions of corpuscles, each a structure in itself. The number of rods in the retina, supposed to be the ultimate recipient of light, is estimated at thirty-million. A German scientist has calculated that the gray matter of the brain is built of at least six hundred million cells.

The word Arctic means property, lying near the constellation of the Bear (Gr. *arctos*) or Ursa Major, and hence, northern. The Arctic Circle is a circle drawn round the North Pole, at a distance from it equal to the obliquity of the ecliptic, or 23½°. The corresponding circle round the South Pole is the Antarctic Circle. Within each of these circles there is a period of the year when the sun does not set, and another when he is never seen, this latter period being longer the nearer to the pole. The word is also used figuratively to express extreme cold.

The Ignis Fatuus (Lat. *ignis*, "fire," *fatuus*, "foolish") is a luminous appearance of uncertain nature which is occasionally seen in marshy places and churchyards. The phenomenon has been frequently described, but it has been observed so rarely in favorable circumstances by scientific men that there is no satisfactory explanation. The light usually appears in autumn evenings shortly after sunset; it is common in the north of Germany, in Italy, in the south and north west of England, and on the west of Scotland, but it has been noticed in many other countries.

A device of modern science called the bottle chart is one which purports to show the track of sealed bottles thrown from ships into the sea. Lieutenant Becher, an English naval officer, constructed in 1843 a chart of bottle-voyages in the Atlantic, so as to illustrate the currents. The time which elapses between the launching of the bottle from the ship and the finding it on shore, or picking up by some other ship, has varied from a few days to sixteen years; while the straight-line distance between the two points has varied from a few miles to five thousand miles.

Somnambulism (Lat. *somnus*, "sleep," *ambulo*, "I walk") is a disorder of sleep. It is symptomatic of more or less activity in some of the psychical and motor areas of the brain, while the centers that preside over consciousness are slumbering soundly. There are different forms, as sleep-crying, sleep-talking (somniloquy) and sleep-walking. These all involve sensori-motor acts. Sleep-walking is closely related to hysteria and epilepsy, and it occasionally alternates with these and allied diseases. It occurs mostly in youth, affecting males and females in almost equal proportion; commonly, although not invariably, it disappears when adult age is attained. It is met with chiefly in persons of nervous temperament.

A Vienna scientist has made a series of interesting experiments with the virus of such insects as bees and wasps, and comes to the conclusion that the effectiveness of the irritating substance depends largely upon the mood of the insect. A drop of the fluid taken from the poison bag of a dead hornet, for instance, produces a slight itching, but nothing resembling the inflammation caused by a hornet sting with a much smaller quantity of the same virus. This theory is supported by the curious fact that under the influence of rage the saliva of all sorts of otherwise harmless animals can become virulent enough to produce alarming and even fatal symptoms. Death from blood poisoning has more than once resulted from the bite of a wounded squirrel, a chipmunk or a caged rat.

Alchemy, a pseudo chemistry, the precursor, in the middle ages, of the modern science, had for its primary object the transmutation of metals into gold and silver by the discovery of a universal solvent containing the primary principle of all matter. This solvent, called the *philosopher's stone*, was supposed to possess the power of renewing life and eliminating disease. Harmes Trismegistus, an ancient Egyptian king, was claimed to be the founder of alchemy by the alchemists. Among its devotees were Roger Bacon, Albertus Magnus, Valentinus, Paracelsus, and others.

Nocturnal creatures are generally supposed not to see well in the daylight, but facts collected are gradually dispelling the idea. It is well known that felines, which see well by night, seem to be able to see quite as well by day, and this is being found true of many other creatures. The bat sees admirably by daytime, as anyone can ascertain by threatening it with a twig. The owl also has first-rate day sight. Night-flying lepidoptera, when disturbed in their places of refuge during the day, have no difficulty in seeing at once where is the nearest and best place for a temporary refuge.

When animals or plants are removed from their peculiar and natural districts to one entirely different in climate some surprising changes take place. As soon as possible after such removal they change their character and habits so as to conform with their new homes, or else cease to exist. A good wool-bearing sheep transferred from some northern pasture to the tropics changes his coat to a thin covering of straggling hairs scarcely resembling wool; the dog becomes destitute of hair altogether, and even bees cease to lay up their stores of honey, and in a great measure lose their industrious habits.

We apply the term buoyancy to that quality whereby a ship, or any other floating body, is enabled to support a certain weight. In the case of a ship, it is necessary that such weight should be carried without her sinking too deeply in the water, or floating too lightly on it. The weight of a ship not loaded with any cargo, is exactly equivalent to the weight of the volume of water she displaces. Therefore, given a certain draught-line to which a ship is to be loaded, multiply the number of cubic feet of the volume of the immersed part by the weight of a cubic foot of sea-water (64 lb.), and the product will be the weight of water displaced by the ship at the given draught-line. If from this the weight of a ship herself be subtracted, the residue is the amount of extra weight, or cargo she is capable of carrying at that draught-line, and is a measure of her quality of buoyancy.

Vivisection is a term applied to experiments upon animals for the purpose of physiological and pathological investigation. The term, although strictly applicable only to cutting operations is extended so as to embrace all scientific operations upon living animals, such as the administration of poisons and the innoculation of disease. The anti-vivisection movement commenced in 1859 with the societies for the prevention of cruelty to animals in Dresden and Paris. By the act of 1876, regulating vivisection, vivisectors must have a license or certificate, the experiment must be performed in a registered place, and the animal to be experimented upon must be rendered insensible by an anæsthetic. In Great Britain, in 1880, there were thirty-three persons licensed to vivisect and three hundred and eleven experiments; in 1889 the numbers had risen to eighty-seven and 1,417.

A planet is said to be in conjunction with another body when it has the same longitude, and is seen in the same direction in the heavens. It is obvious that in the case of the inferior planets this conjunction will be of two kinds: the one when the planet is between the Earth and the Sun, called *inferior* conjunction; and the other when at the opposite point of of its orbit, with the Sun between the planet and the Earth, called *superior* conjunction. The latter is the only kind of conjunction that can happen to the *superior* planets Mars, Jupiter, Saturn, Uranus and Neptune; the *inferior* planets, Mercury and Venus, being subject to both positions.

In many mountain ranges rent by the action of torrents, isolated cliffs have been left standing like monuments of former geological periods while the softer strata of gravel and loose rocks have been washed away, with the exception perhaps of a massive boulder resting, as it were, upon the roof of a tower-like crag. On the island of Mauritius that arrangement repeats itself on a marvelous scale in the mountain peak known as "Peter Botte" a monolith towering above the coast range to a height of more than 2,000 feet and supporting a rock so much broader than its pedestal that it gives the combination the appearance of an inverted pyramid or a gigantic toad-stool.

The stars which stud the firmament have, from a time earlier than authentic records can trace, been formed into artificial groups, which have received names borrowed from fancy or fable, mainly from Greek mythology. These groups are called constellations. Though quite devoid of anything like systematic arrangement, this traditional grouping is found a sufficiently convenient classification, and still remains the basis of nomenclature for the stars among astronomers. They are divided into northern, southern and zodiacal constellations. In old authors, "constellation" is used to signify the relative positions of the planets at a given moment.

It is only within a few years, one might almost say months, that the wide effect of the warm, moist Pacific winds, called chinooks, has been known in British Columbia and Alaska. These winds, corresponding exactly to those that make England a fertile country in the latitude of Labrador, keep the snow melted from the plains at the eastern base of the Rockies, and they encourage a magnificent growth of root crops, cabbage, oats and grass a thousand miles north of New York. Wheat does not do well and berries are small, though little attempt has been made to cultivate fruit. The winters are biting cold, but dry, and the summer, though short, is so hot that vegetation comes out of the earth with a rush.

Eureka! or rather *Heureka!* ("I have discovered it!") was the exclamation of Archimedes, the Syracusan philosopher, when he found out how to test the purity of Hiero's crown. The tale is that Hiero suspected that a craftsman to whom he had given a certain weight of gold to make into a crown had alloyed the metal, and he asked Archimedes to ascertain if his suspicion was well founded. The philosopher, getting into his bath, observed that the water ran over, and it flashed into his mind that his body displaced its own bulk of water. Now suppose Hiero gave the goldsmith one pound of gold, and the crown weighed one pound, it is manifest that if the crown was pure gold, both ought to displace the same quantity of water; but they did not do so, and therefore the gold had been tampered with. Archimedes next immersed in water one pound of silver, and the difference of water displaced soon gave the clue to the amount of alloy introduced by the artificer.

The phenomenon known as the blizzard is a fierce storm of bitter, frosty wind with blinding snow, in which, especially in the western States, man and beast often perish. The word seems to be akin to blast and bluster and is no doubt onomatopoetic in character. The most severe of record is the one that visited the Dakotas, Montana, Minnesota, Nebraska, Kansas and Texas in January, 1888. Within twenty-four hours the thermometer fell from 74° above zero to 28° below zero in most places and in Dakota to 40° below. The roar of the wind drowned the voices of men six feet distant. Objects a few yards off became invisible. Some two hundred and thirty-five lives were lost. The Colorado river in Texas for the first time in the memory of man was covered with ice a foot thick.

Such fierce canivorous fishes as exist in the depths of the ocean are unknown at the surface. There is the "black swallower," which devours other finny creatures ten times as big as itself, literally climbing over its victim, first with one jaw and then with the other. Another species is nearly all mouth, and having no power of locomotion, it lives buried in the soft ooze at the bottom, its head alone protruding, ready to engulf any prey that may wander into its cavernous jaws. There is a ferocious kind of shark, resembling a huge eel. All of these monsters are black as ink. Some of them are perfectly blind, while others have enormous goggling eyes. No ray of sunlight ever pierces the dark unfathomed caves in which they dwell. Each species is gobbled by the species next bigger, for there is no vegetable life to feed on.

On metal rails a horse can draw:

One and two-thirds times as much as on asphalt pavement.
Three and one-third times as much as on good Belgian blocks.
Five times as much as on ordinary Belgian blocks.
Seven times as much as on good cobble-stone.
Thirteen times as much as on ordinary cobble-stone.
Twenty times as much as on an earth road.
Forty times as much as on sand.

A modern compilation of engineering maxims states that a horse can drag, as compared to what he can carry on his back, in the following proportions: On the worst earthen road, three times more; on a good macadamized road, nine; on plank, twenty-five; on a stone trackway; thirty-three; and on a good railway, fifty-four times as much.

Whirlwinds occurring on the sea and other sheets of water are called waterspouts. When fully formed they appear as tall pillars of cloud stretching from the sea to the sky, whirling round their axes, and exhibiting the progressive movement of the whole mass precisely as in the case of the dust-whirl-wind. The sea at the base of the whirling vortices is thrown into violent commotion, resembling the surface of water in rapid ebullition. What are sometimes called "waterspouts on land" are quite distinct phenomena. They are merely heavy falls of rain of a very local character, and may or may not be accompanied with whirling winds. They generally occur during thunderstorms, being quite analogous to severe hailstorms, from which they differ only in point of temperature, the heavy drops being probably no more than melted hailstones. Also all the moisture that falls is the result of condensation; whereas, in the true waterspout, the rain is mixed with spray which has been caught up from the broken waves, carried aloft by the ascending currents of the whirlwind, and ultimately precipitated with the rain.

Hypnotism is a method for the alleged cure of disease, by the concentrated action of the mind upon the body while in a state of trance, induced by causing the patient to fix his eyes and concentrate his mind upon a disc of bright metal held at a distance of about twelve inches above the level of the eyes. The first effort to investigate hypnotism in a scientific manner was made by James Braid, of Manchester (1846) from which circumstance hypnotism is sometimes called *Braidism*. The power to hypnotize is possessed only by persons of peculiar mental organization. While in the hypnotized condition, which renders them insensible to pain, patients may be operated upon for surgical or medical purposes, the patient being entirely subject to the will of the hypnotizer. Hypnotism can, however, only be considered as of quasi medical utility, though investigation is being made with the view to placing it on a sound scientific basis.

The Copernican system is that which represents the sun to be at rest in the center of the universe, and the earth and planets to move round it as a center. It got its name from Copernicus, who (although some vague general notion of the system seem to be due to Pythagoras) first distinctly drew the attention of philosophers to it, and devoted his life to its demonstration. For the rest, the glory of developing on the lines he broadly laid down, belongs to Kepler, Galileo and others, and to Newton who finally marked out the form of modern theoretical astronomy. Many who reverence the name of Copernicus in connection with this system, would be surprised to find, on perusing his work, how much of error, unsound reasoning, and happy conjecture combined to secure for him in all times the association of the system with his name; yet, with all its faults, that work marks one of the greatest steps ever taken in science.

The system of philosophy known as positivism, taught by Auguste Comte (1799-1857), discarding the possibility of knowing the beginning and the end of anything, concerns itself only with what lies between. It accepts neither atheism, theism, nor pantheism. It may be divided into two parts: The historic conception and the co-ordination of the sciences. The former is this: That the human mind passes through three stages, viz., the theological, the metaphysical and the positive. In all subjects capable of experiment it passes from metaphysics to experimental verification or exact science. In regard to the co-ordination of the sciences the basis is mathematics; then follow astronomy, physics, chemistry, biology and sociology. Take the last: The science of society is impossible without the science of life. The science of life is impossible without chemistry. Chemistry presupposes physics, physics astronomy, and astronomy mathematics.

If we look intently at a bright star we notice that the color and intensity of the light is constantly changing from brilliancy to almost total obscurity, and from bright red to blue, orange, yellow, etc. This is the phenomenon usually spoken of as the "twinkling" or scintillation of the stars. The "twinkling" will be noticed more plainly when the star is near the horizon, and will diminish in intensity as it rises until it is near the zenith, at which time the twinkling is scarcely noticeable. It must be confessed that this twinkling has never been explained to the satisfaction of all investigators. However, it is generally believed to be due to controlling causes within the earth's atmosphere. That the cause may be looked for within the belt of air that surrounds our planet (to particles of

vapor, dust, etc.) may be inferred from the fact that the planets never exhibit the characteristic twinkling so noticeable in the star. One reason for this is the size (apparent) of the planets. The planets each show a sensible disk even to the naked eye, while the strongest instrument in the world only shows the stars as being mere points of light. This being the case, any foreign substance in the atmosphere would momentarily hide the light and make the star appear to "twinkle."

Two synonymous terms in science are Equinoxes and Equinoctial Points. More commonly, by the equinoxes are meant the times when the sun enters those points—viz. 21st March and 22d September, the former being called the Vernal or Spring Equinox, and the latter the Autumnal. When in the equinoxes, the sun, through the earth's rotation on its axis, seems to describe the circle of the equator in the heavens, and the days and nights are of equal length all over the world. At the vernal equinox, the sun is passing from south to north, and in the northern hemisphere the days are lengthening; at the autumnal, he is passing from north to south, and the days are shortening. As the earth moves more rapidly when near the sun, or in winter, the sun's apparent motion is not uniform, and it happens that he takes eight days more to pass from the vernal to the autumnal equinox than from the latter to the former. The equinoctial points are not stationary.

Thought-reading, or mind-reading, is a term which came up in 1881 to designate the act or art of discerning what is passing in another's mind by some direct and unexplained method, depending neither on gesture, facial expression, nor any articulate or other voluntary indication. It was brought into notice (1881) by Mr. W. Irving Bishop (*d.* 1889), who professed, while blindfolded, and without the aid of confederates, or of collusion with his subject whose hand and pulse he held, and with whom he thereby became in mesmeric sympathy, to find any article previously hidden by the subject, or to show in other ways that he was able to read the subject's thought. The believing explanation is that thought-force, nervous energy, or the like, passes in a perfectly natural but as yet unexplained manner through A's forehead into B's hand, and so to B's mind. The unbelieving theory is that A inevitably, but quite unconsciously, communicates a succession of slight but sufficient muscular indications to B, which B instinctively follows without being aware of them severally. Enthusiasts have sought to include thought-reading in the sphere of spiritualism.

THE LARGEST RIVER SYSTEMS.

RIVER.	Area of Basin, sq. m.	Length Miles.	RIVERS.	Area of Basin. sq. m.	Length Miles.
Amazon	2,230,000	3,400	Ganges and Brahmaputra	588,000	1,800
Congo	1,540,000	2,600	Zambesi	570,000	1,600
Nile	1,290,000	3,700	St. Lawrence	565,000	2,400
Mississippi	1,290,000	4,100	Winnipeg-Nelson	504,000	1,500
Niger	1,060,000	2,600	Yukon	433,000	2,200
Obi	1,190,000	3,200	Orinoco	430,000	1,400
La Plata	995,000	2,300	Amur	403,000	2,800
Lena	942,000	2,900	Hoang-ho	387,000	2,500
Yenisei	880,000	3,200	Indus	360,000	1,900
Yang-tsze-kiang	689,000	3,200	Danube	330,000	1,700
Mackenzie	607,000	2,300	Murray	300,000	1,500
Volga	592,000	2,200			

THE ZODIAC AND ITS SIGNS.

Zodiac was the name given by the ancients to an imaginary band extending round the celestial sphere, having as its mesial line the ecliptic or apparent path of the sun. It was fixed at about 16° in width, for the purpose of comprehending the paths of the sun and of the five planets (Mercury, Venus, Mars, Jupiter and Saturn) which were then known; and as of these planets Mercury has by far the greatest inclination of orbit to the ecliptic, and the value of that element in his case is only 7° 0′ 9″ the width given to the zodiac was amply sufficient for the required purpose.

SIGNS OF THE ZODIAC.

♈	Aries	The Ram.
♉	Taurus	The Bull.
♊	Gemini	The Twins.
♋	Cancer	The Crab.
♌	Leo	The Lion.
♍	Virgo	The Virgin.
♎	Libra	The Balance.
♏	Scorpio	The Scorpion.
♐	Sagittarius	The Archer.
♑	Capricornus	The Goat.
♒	Aquarius	The Water-Bearer.
♓	Pisces	The Fishes.

FREEZING, FUSING AND BOILING POINTS.

SUBSTANCES.	REAUMUR.	CENTIGRADE	FAHRENHEIT
FREEZING—			
Bromine freezes at	—16°	—20°	— 4°
Oil Anise	8	10	50
" Olive	8	10	50
" Rose	12	15	60
Quicksilver	—31.5	—39.4	—39
Water	— 1	0	32
FUSING—			
Bismuth metal fuses at	200	264	507
Cadmium	248.8	315	598
Copper	874.6	1093	2000
Gold	961	1200	2200
Iodine	92	115	239
Iron	1230	1538	2800
Lead	256.5	325	617
Potassium	46	58	136
Phosphorus	34	44	111
Silver	816.8	1021	1870
" Nitrate	159	198	389
Sodium	72	90	194
Steel	1452	1856	3300
Sulphur	72	90	194
Tin	173	230	446
Zinc	328	410	770
BOILING—			
Alcohol boils at	63	78	173
Bromine	50	53	145
Ether	28	35	95
" Nitrous	11	14	57
Iodine	140	175	347
Olive Oil	252	315	600
Quicksilver	280	350	662
Water	80	100	212

SPECIFIC GRAVITY OF SUBSTANCES.

A gallon of water or wine weighs 10 lbs., and this is taken as the basis of the following table:

LIQUIDS.		TIMBER.		METALS.	
Water	100	Cork	24	Zinc	719
Sea Water	103	Poplar	38	Cast iron	721
Dead Sea	124	Fir	55	Tin	729
Alcohol	84	Cedar	61	Bar iron	779
Olive oil	92	Pear	66	Steel	783
Turpentine	99	Walnut	67	Copper	869
Wine	100	Cherry	72	Brass	840
Urine	101	Maple	75	Silver	1,051
Cider	102	Ash	84	Lead	1,135
Beer	102	Apple	79	Mercury	1,357
Woman's milk	102	Beech	85	Gold	1,926
Cow's milk	103	Mahogany	106	Platina	1,950
Goat's milk	104	Oak	117		
Porter	104	Ebony	133		

PRECIOUS STONES.					
Emerald	277.5	Diamond	353.0	Garnet	406.3
Crystal	265.3	Topaz	401.1	Ruby	428.3

SUNDRIES.					
Indigo	77	Peat	133	Porcelain	226
Gunpowder	93	Opium	134	Stone	252
Butter	94	Honey	145	Marble	270
Ice	117	Ivory	183	Granite	278
Clay	120	Brick	200	Chalk	279
Coal	130	Sulphur	208	Glass	289

SELECTED WEIGHTS.					
	Lbs. per Cub. Ft.		Lbs. per Cub. Ft.		Lbs. per Cub. Ft.
Cork	15	Oak	70	Iron	470
Cedar	36	Clay	72	Copper	520
Beech	51	Coal	80	Silver	630
Butter	56	Brick	120	Lead	680
Water	62	Stone	150	Gold	1,155
Mahogany	66	Granite	166		
Ice	70	Glass	172		

THE SOLAR SYSTEM.

NAME.	Mean Distance From Earth in Millions of Miles.	Mean Distance From Sun, Millions of Miles.	Sidereal Period, Days.	Orbit Velocity, Miles per Second.	Mean Diameter, Miles.
Sun	92.9				866,400
Mercury	56.9	36.0	87.969	23 to 35	3,030
Venus	25.7	67.2	224.701	21.9	7,700
Earth		92.9	365.256	18.5	7,918
Mars	48.6	141.5	686.950	15.0	4,230
Jupiter	390.4	483.3	4,332.58	8.1	86,500
Saturn	793.2	886.0	10,759.22	6.0	71,000
Uranus	1,689.0	1,781.9	30,686.82	4.2	31,900
Neptune	2,698.8	2,791.6	60,181.11	3.4	31,900

The number of asteroids discovered up to present date is 330. A number of these small planets have not been observed since their discovery, and are practically lost. Consequently it is now sometimes a matter of doubt, until the elements have been computed, if the supposed new planet is really new, or only an old one rediscovered.

It is supposed that a Centuri, one of the brightest stars of the Southern Hemisphere, is the nearest of the fixed stars to the earth. The researches on its parallax by Henderson and Maclear gave it for its distance from the earth, in round numbers, 20,000,000,000,000 of miles. At the inconceivably rapid rate at which light is propagated through space, it would require three years and three months to reach the earth from this star.

SOME GREAT WATERFALLS.

Waterfalls occur most frequently in mountainous countries, where the streams from the mountain sides enter the valleys. These mountain waterfalls, however, are generally rather curious and picturesque than grand, the volume of water being in most cases comparatively insignificant, though the height of fall is occasionally very great.

Among the leading waterfalls are:

Yosemite (3 plunges)	2,660 feet.
Roraima Falls, Guiana (2 plunges)	2,000 "
Grand Falls, Labrador	2,000 "
Sutherland Falls, New Zealand (3 plunges)	1,904 "
Kukenam Fall, Guiana (sheer plunge)	1,500 "
Gavarnie Fall, Pyrenees	1,380 "
Staubbach	866 "
Kaieteur Falls, Guiana	740 "
Tequendama Falls, near Bogota	625 "
Victoria Falls, Zambesi	400 "
Rio Iguassu, southern Brazil	215 "
Shoshone	210 "
Foyers, highest in Britain (2 plunges)	205 "
Hay River, Alaska	200 "
Niagara	169 "

LIGHTNING CONDUCTORS.

Copper is the best material for conductors. When circumstances are not such as to promote corrosion iron may be used, but of larger dimensions. Its conductivity is about one-fifth that of copper.

Copper lightning conductors should be of the following dimensions: Rods ½″ diameter, tubes ⅝″ diameter, ⅛″ thick, or bands 1½″ wide, ⅔″ thick.

Iron lightning conductors should be either solid rods 1″ diameter, or bands 2″ wide, ⅛″ thick.

Lightning conductors afford protection over a circle whose radius equals their height from the ground; formerly considered twice.

LATITUDE AND LONGITUDE.

A Table showing the number of miles in degree of longitude at each degree of latitude.

LAT.	MILES.	LAT.	MILES.	LAT.	MILES.	LAT.	MILES.	LAT.	MILES.
1°	60.	19°	56.7	37°	47.9	55°	34.4	73°	17.5
2	60.	20	56.4	38	47.3	56	33.6	74	16.5
3	59.9	21	56.0	39	46.6	57	32.7	75	15.5
4	59.9	22	55.6	40	46.0	58	31.8	76	14.5
5	59.8	23	55.2	41	45.3	59	30.9	77	13.5
6	59.7	24	54.8	42	44.6	60	30.0	78	12.5
7	59 6	25	54.4	43	43.9	61	29.1	79	11.4
8	59.4	26	53.9	44	43.2	62	28.2	80	10.4
9	59.3	27	53.5	45	42.4	63	27.2	81	9.4
10	59.1	28	53.0	46	41.7	64	26.3	82	8.4
11	58.9	29	52.5	47	40 9	65	25.4	83	7.3
12	58.7	30	52.0	48	40.1	66	24.4	84	6.3
13	58.5	31	51.4	49	39.4	67	23.4	85	5.2
14	58.2	32	50.9	50	38.6	68	22.5	86	4.2
15	58.0	33	50.3	51	37.8	69	21.5	87	3.1
16	57.7	34	49.7	52	36.9	70	20.5	88	2.1
17	57.4	35	49.1	53	36.1	71	19.5	89	1.0
18	57.1	36	48.5	54	35.3	72	18.5	90	0.0

THE THERMOMETER.

The thermometer is an instrument for measuring the heat or temperature of bodies by the regular expansion of mercury or alcohol in a graduated glass tube. Halley proposed the substitution of mercury for alcohol in 1697. The thermometers usually employed are Fahrenheit's, the Centigrade and Reaumur's, the first invented in 1726, and the two others soon afterwards.

The following table is interesting as a comparison of the three thermometers:

	Reaumur.	Centigrade.	Fahrenheit.
Freezing point	0	0	32
Vine Cultivation	8	10	50
Cotton cultivation	16	20	68
Hatching eggs	32	40	104
	40	50	122
	48	60	140
	56	70	158
	64	80	176
	72	90	194
Water boils	80	100	212

Ice melts at 32°; temperature of globe, 50°; blood heat, 98°; alcohol boils, 174°; water boils, 212°; lead melts, 594°; heat of common fire, 1,140°; brass melts, 2,233°; iron melts, 3,479°.

To convert one thermometer into another, observe the following rules:

To convert Fahrenheit into Centigrade—Deduct 32°, multiply by 5 and divide by 9.

To convert Fahrenheit into Reaumur—Deduct 32°, divide by 9 and multiply by 4.

To convert Centigrade into Fahrenheit—Multiply by 9, divide by 5 and add 32°.

To convert Centigrade into Reaumur—Multiply by 4 and divide by 5.

To convert Reaumur into Centigrade—Multiply by 5 and divide by 4.

To convert Reaumur into Fahrenheit—Multiply by 9, divide by 4 and add 32°.

SUMMER HEAT IN VARIOUS LANDS.

The following figures show the extreme summer heat in the various countries of the world: Bengal and the African desert, 150° Fahrenheit; Senegal and Guadaloupe, 130°; Persia, 125°; Calcutta and Central America, 120°; Yuma, Arizona, 118°; Afghanistan and the Arabian desert, and at Umatilla, Oregon, and Poplar River, Montana, 110°; in four places in western and southern United States the temperature has reached 108°; Cape of Good Hope and Utah, 105; Greece, 104°; Arabia, 103°; Montreal, 103°; New York, and at twelve other places in the United States, 102°; Spain, India, China, Jamaica, and at eleven points in the United States, 100°; Sierra Leone, 94°; France, Denmark, St. Petersburg, Shanghai, the Burman Empire, Buenos Ayres, and the Sandwich Islands, 90°; Great Britain, Siam, and Peru, 85°; Portugal, Pekin and Natal, 80°; Siberia, 77°; Australia and Scotland, 75°; Italy, Venezuela and Madeira, 73°; Prussia and New Zealand, 70°; Switzerland and Hungary, 66°; Bavaria, Sweden, Tasmania and Moscow, 65°; Patagonia and the Falkland Isles, 55°; Iceland, 45°; Nova Zembla, 34°.

HISTORIC COLD WEATHER.

1234. Mediterranean frozen; traffic with carts.
1490. Bosphorus frozen.
1468. Wine at Antwerp sold in blocks.
1658. Swedish artillery crossed the sound.
1766. Snow knee-deep at Naples.
1789. Fahrenheit thermometer marked 23° below zero at Frankfort, and 36° below at Basle.
1809. Moscow, 48° below zero, greatest cold recorded there; mercury frozen.
1829. Jakoutsk, Siberia, 73° below zero on the 25th of January; greatest cold on record.
1846. December marked 25° below zero at Pontarlier; lowest ever marked in France.
1864. January, Fahrenheit stood at zero in Turin; greatest cold recorded in Italy.

Captain Parry, in his Arctic explorations, suffered for some time fifty-one degrees below zero Frost is diminishing in Canada with the increase of population, as shown by the fact that Hudson's Bay was closed from 1828-'37, 184 days per annum, and from 1871-'80 only 179 days per annum.

EXTREME HEAT IN EUROPE.

In 1303 and 1304 the Rhine, Loire and Seine ran dry. The heat in several French provinces during the summer of 1705 was equal to that of a glass furnace. Meat could be cooked by merely exposing it to the sun. Not a soul dare venture out between noon and 4 P.M. In 1718 many shops had to close. The theaters never opened their doors for three months. Not a drop of water fell during six months. In 1773 the thermometer rose to 118 degrees. In 1778 the heat of Bologna was so great that a great many people were stifled. There was not sufficient air for the breath, and people had to take refuge under the ground. In July, 1793, the heat again became intolerable. Vegetables wers burned up, and fruit dried on the trees. The furniture and wood-work in dwelling-houses cracked and split up; meat, exposed, decayed in an hour.

HORSE POWER OF STEAM ENGINES.

The *unit* of nominal power for steam engines, or the usual estimate of dynamical effect per minute of a horse, called by engineers a "horse power," is thirty-three thousand pounds at a velocity of one foot per minute, or, the effect of a load of two hundred pounds raised by a horse for eight hours a day, at the rate of two and a half miles per hour, or 150 pounds at the rate of 220 feet per minute.

RULE.—Multiply the area of the piston in square inches by the average force of the steam in pounds and by the velocity of the piston in feet per minute; divide the product by thirty-three thousand, and $\frac{7}{10}$ of the quotient equal the effective power.

TERMS IN ELECTRICITY.

The technical terms used in regard to electricity refer to units of various nature. Thus the unit of capacity is one farad; the unit of activity, one watt; the unit of work, one joule; the unit of quantity, one coulomb; the unit of current, one ampere; the unit of resistance, one ohm; the unit of magnetic field, one gauss; the unit of pressure, one volt; the unit of force, one dyne. The names are mostly derived from the names of men that have been famous in the field of electrical research. Thus Michael Faraday, James Watt and James P. Joule, famous English discoverers, give their names to the first three units mentioned; Charles A. Coulomb and Andre M. Ampère, French inventors, to the two units following; G. S. Ohm and Carl F. Gauss, Germans, name two more units; and the volt is named from the Italian discoverer, Volta. The dyne is derived from the root word of dynamo, itself meaning force.

HEIGHTS OF THE PRINCIPAL MOUNTAIN PEAKS.

ASIA.	Feet.
Everest, Himalayas	29,002
Dapsang, Karakorums	28,700
Tagarma, Pamir	25,800
Khan-tengri, Tian-shan	24,000
AFRICA.	
Kilima-Njaro	19,680
Kenia	19,000
Ruwenzori	18,000
Ligonyi	14,000
AUSTRALIA AND POLYNESIA.	
Mount Hercules, Isle of Papua	32,763
Charles-Louis, New Guinea	20,000
Mauna Koa, Hawaii	13,805
Mt. Cook, New Zealand	12,349
Kinabalu, Borneo	11,582
Mt. Kosciusko, New South Wales	7,308

NORTH AMERICA.	Feet.
Nevada de Toluca	19,454
Orizaba	18,314
Mount St. Elias	18,010
Mount Brown	16,000
SOUTH AMERICA.	
Aconcagua	22,867
Mercedario	22,302
Gualtieri	22,000
Huascan	22,000
EUROPE.	
Mont Blanc	15,782
Ben Nevis	4,406
Snowdon	3,571
Carran-Tual	3,414
Scaw Fell Pike	3,210

CURIOUS FACTS ABOUT FISHES.

Following are some curious facts about fishes. While naturalists have generally accepted Cuvier's view that the existence of fishes is silent, emotionless and joyless, recent observations tend to show that many fishes emit vocal sounds. The *anabas scandens*, the climbing perch of India, quits the water and wanders over banks for considerable distances, and is even said to climb trees and bushes. At Tranquebar, Hindoostan, may be seen the strange spectacle of fish and shell-fish dwelling high on lofty trees. The perch there climbs up tall fan-palms in pursuit of certain shell-fish which form his favorite food. Covered with viscid slime, he glides smoothly over the rough bark. Spines, which he may sheathe and unfold at will, serve him like hands to hang by, and with the aid of side fins and a powerful tail he pushes himself upward. One species of fish, the sticklebacks, are known to build nests. There are several varieties of this fish, all natives of fresh water with one or two exceptions. They are found in the Ottawa River. The cyprinodon is a sightless fish which gropes in the dreary waters of the Mammoth Cave of Kentucky.

The blind fish are so sensitive that the sound made by the dropping of a grain of sand on the water will cause them to dart away beyond reach.

THE AURORA BOREALIS.

Northern lights, or Aurora Borealis, is the name given to the luminous phenomenon which is seen towards the north of the heavens by the inhabitants of the higher latitudes. During the winter of the northern hemisphere, the inhabitants of the arctic zone are without the light of the sun for months together, and their long dreary night is relieved by this beautiful meteor, which occurs with great frequency in those regions. Those who have explored the southern seas have seen the same phenomenon in the direction of the south pole, so that the term Polar Lights might be more appropriate than Northern Lights to designate the aurora. For the phenomenon as seen in the southern hemisphere, the name aurora Australis is used. The appearance of the aurora borealis has been described by a great variety of observers in Northern Europe and in America, all of whom give substantially the same account of the manner in which the phenomenon takes place.

COMMON NAMES OF CHEMICAL SUBSTANCES.

Aqua Fortis	Nitric Acid.
Aqua Regia	Nitro-Muriatic Acid.
Blue Vitriol	Sulphate of Copper.
Cream of Tartar	Bitartrate Potassium.
Calomel	Chloride of Mercury.
Chalk	Carbonate Calcium.
Salt of Tartar	Carbonate of Potassa.
Caustic Potassa	Hydrate Potassium.
Chloroform	Chloride of Gormyle.
Common Salt	Chloride of Sodium.
Copperas, or Green Vitriol	Sulphate of Iron.
Corrosive Sublimate	Bi-Chloride of Mercury.
Diamond	Pure Carbon.
Dry Alum	Sulphate Alluminum and Potassium.
Epsom Salts	Sulphate of Magnesia.
Ethiops Mineral	Black Sulphide of Mercury.
Galena	Sulphide of Lead.
Glauber's-Salt	Sulphate of Sodium.
Glucose	Grape Sugar.
Iron Pyrites	Bi-Sulphide Iron.
Jeweler's Putty	Oxide of Tin.
King's Yellow	Sulphide of Arsenic.
Laughing Gas	Protoxide of Nitrogen.
Lime	Oxide of Calcium.
Lunar Caustic	Nitrate of Silver.
Muriate of Lime	Chloride of Calcium.
Niter of Saltpeter	Nitrate of Potash.
Oil of Vitriol	Sulphuric Acid.
Potash	Oxide of Potassium.
Realgar	Sulphide of Arsenic.
Red Lead	Oxide of Lead.
Rust of Iron	Oxide of Iron.
Salmoniac	Muriate of Ammonia.
Slacked Lime	Hydrate Calcium.
Soda	Oxide of Sodium.
Spirits of Hartshorn	Ammonia.
Spirit of Salt	Hydro-Chloric, or Muriatic Acid.
Stucco, or Plaster of Paris	Sulphate of Lime.
Sugar of Lead	Acetate of Lead.
Verdigris	Basic Acetate of Copper.
Vermilion	Sulphide of Mercury.
Vinegar	Acetic Acid (diluted).
Volatile Alkali	Ammonia.
Water	Oxide of Hydrogen.
White Precipitate	Ammoniated Mercury.
White Vitriol	Sulphate of Zinc.

THE NEBULAR HYPOTHESIS.

The nebular hypothesis, now generally accepted by scientists as explaining, as far as possible by human conception, the genesis of the heavenly bodies, was first suggested by Herschel, and developed by Laplace. It assumes that the solar system was once an enormous mass of gaseous substance. Rapid rotation being set up in this gaseous mass, it took the form of a disc, and at last, centrifugal force overcoming cohesion, whole rings and fragments flew off from this disc, and by centripetal force contracted into spheroid masses. As in the original mass, the velocity of the outer circle of each body thrown off is greater than the inner circle, and this causes each spheroid to revolve on its own axis. This process goes on, and the central mass continues to cool and shrink, until we have at last a central body with a number of smaller spheroidal bodies revolving around it in orbits the smaller the nearer they are to the central orb. Certain points are assumed in this hypothesis to explain the distribution of matter in our solar system. It is assumed that in the

throwing off of great masses from the central disk, immense quantities of minute particles were also thrown, which continued to revolve, in the same plane with the large mass, around the center body. By slow degrees these minute atoms, by the law of gravitation, were aggregated into the mass nearest to them. These subordinate aggregations would form with most difficulty nearest the large central mass, because of the superior attractive force of the latter, wherefore the interior planets—Mercury, Venus, the Earth, Mars—are smaller than the two great orbs in the zone beyond them. These two enormous planets, Jupiter and Saturn, occupy the space where conditions are most favorable to subordinate aggregations, but, beyond them, the gravity of aggregating material becomes reduced, and so the planets found in the outer zone, Uranus and Neptune, are smaller than the planets of the middle zone.

AEROLITES.

B.C. 654, a shower of stone fell on the Alban Mount (*Livy.*)

B.C. 467, a great stone fell at Ægospotămi, on the Hellespont (*Parian Chronicle*). Pliny says it was about the size of a wagon.

A.D. 1492, November 7, a ponderous stone, weighing 250 pounds, fell from the sky near the town of Ensisheim, in Upper Alsace. A part of it is still preserved in the parish church. The Emperor Maximilian witnessed the fall of this meteor, and had the stone placed in the church to prove that "God insisted on a crusade against the Turks."

A.D. 1510, there was a great fall of meteors in Lombardy, some sixty pounds in weight, and some as much as 120 pounds. They were of a rusty color.

A.D. 1627, November 27, a stone weighing fifty-nine pounds fell on Mount Vassier, in Provence. This is attested by Gassendi.

A.D. 1751, May 26. Two masses fell at Agram, in Sclavonia, one weighing sixteen pounds and the other seventy-one pounds. The analysis of these stones by Klaproth is preserved in the Vienna museum (ninety-five parts are iron, three nickel).

A.D. 1803, April 26. A shower of stones fell near L'Aigle. M. Biot was deputed by the French Government to repair to the spot and report on the phenomenon. Between two thousand and three thousand stones had fallen, the largest being seventeen pounds in weight.

A.D. 1807, March 13. A stone fell at Smolensk, in Russia, weighing 160 pounds. It was black and shiny.

A.D. 1813, September 10. A stone weighing seventeen pounds fell in the county of Limerick, at 10 o'clock in the morning.

A.D. 1815, February 15. A stone weighing twenty-five pounds fell in the town of Dooralla, in British India. The Indians consecrated it in a temple, and approach it with reverence and clasped hands.

A.D. 1822, June 2, Sunday, 3 o'clock P. M. An aërolith fell at Gislingham, Suffolk. It made a deep hole in the earth and then bounded off and burst. It fell with a tremendous noise, like crashing thunder.

In the Imperial Museum of St. Petersburg is an immense mass. The fall was witnessed by Pallas in Siberia.

The largest aërolith known is one which fell in Brazil. It is estimated to weigh about thirty tons.

A.D. 1887. An aërolith fell near St. Joseph, in the West Indies. It weighs two tons and buried itself in the earth between fifteen and eighteen feet.

HOW WE MEASURE THE EARTH.

The circumference of the earth is measured in this way: Suppose two astronomers, A and B, stationed on the same meridian, a certain distance apart, and with accurate instruments, should make careful observations on a certain star at the moment it crossed the meridian; and A should find the star 16 degrees south of the zenith, and B, who is exactly 415 miles south of A, should find it only 10 degrees south of the zenith; there would then be a difference of 6 degrees between the two places; and as they are 415 miles apart, *one* degree must be ⅙th of 415 or 69 ⅙th miles. Now, if one degree, which is the 360th part of the earth's circumference, is 69 ⅙ miles, the whole circumference must be 360 times 69 ⅙, or 24,900 miles.

WHAT IS VENTRILOQUISM?

Ventriloquism is the art of producing tones and words without any motion of the mouth, so that the hearer is induced to refer the sound to some other place. It does not depend on any peculiar structure of the organs of voice, but upon practice and dexterity. The name is founded upon the mistaken supposition that the voice proceeds from the belly. The art of the ventriloquist consists mainly in taking a deep inhalation of breath, and then allowing it to escape slowly; the sounds of the voice being modified and muffled by means of the muscles of the upper part of the throat and of the palate. The ventriloquist avails himself at the same time of means such as are employed by slight-of-hand performers to mislead the attention. Ventriloquism is a very ancient art; the Greeks ascribed it to the operation of demons, and called ventriloquists *Epaastrimanteis* ("belly-prophets.")

SOME FACTS IN HYDRAULICS.

A gallon of water (U. S. standard) weighs 8⅓ pounds and contains 231 cubic inches. A cubic foot of water weighs 62½ pounds, and contains 1,728 cubic inches or 7½ gallons.

Doubling the diameter of a pipe increases its capacity four times. Friction of liquids in pipes increases as the square of the velocity.

The mean pressure of the atmosphere is usually estimated at 14.7 pounds per square inch, so that with a perfect vacuum it will sustain a column of mercury 20.9 inches or a column of water 33.9 feet high.

To find the pressure in pounds per square inch of a column of water, multiply the height of the column in feet by .434. Approximately we say that every foot elevation is equal to ½ pound pressure per square inch; this allows for ordinary friction.

To find the diameter of a pump cylinder to move a given quantity of water per minute (hundred feet of piston being the standard of speed), divide the number of gallons by four, then extract the square root, and the product will be the diameter in inches of the pump cylinder.

To find the quantity of water elevated in one minute running at one hundred feet of piston speed per minute: Square the diameter of the water cylinder in inches and multiply by four. Example: Capacity of a five-inch cylinder is desired. The square of the diameter (five inches) is twenty-five, which, multiplied by four, gives one hundred, the number of gallons per minute (approximately).

To find the horse power necessary to elevate water to a given height, multiply the total weight of the water in pounds by the height in feet

and divide the product by 33,000 (an allowance of twenty-five per cent should be added for water friction, and a further allowance of twenty-five per cent for loss in steam cylinder).

The area of the steam piston, multiplied by the steam pressure, gives the total amount of pressure that can be exerted. The area of the water piston multiplied by the pressure of water per square inch gives the resistance. A margin must be made between the power and the resistance to move the pistons at the required speed—say from twenty to forty per cent, according to speed and other conditions.

To find the capacity of a cylinder in gallons. Multiplying the area in inches, by the length of stroke in inches, will give the total number of cubic inches; divide this amount by 231 (which is the cubical contents of a U. S. gallon in inches), and the product is the capacity in gallons.

GENESIS OF HELIOGRAPHY.

As long ago as 333 years before Christ, Alexander the Great employed mirrors to convey signals by the light of the sun. Since the time of the great warrior the idea has been reduced to a science and called "heliography." The heliostat, an instrument invented in Holland early in the eighteenth century, and the heliograph, invented by Manse in 1875, have both been used by the British army in their eastern campaigns. The instruments mentioned differ somewhat in construction, but the results are the same, no matter which instrument is used. In both signals are produced by causing a reflected ray of the sun to appear and disappear alternately at a distant point, the intervals of appearance and obscuration being carried in lengths so as to produce the combination of long and short signals known as the Morse alphabet. In these instruments the reflecting body is a glass mirror, which varies in size according to the distance to which it is desired to signal. A five-inch mirror has given under favorable atmospheric conditions distinct signals that could be read sixty miles away. The heliograph has also been found to be of great service in defining distant points of large surveys and was used to a fine advantage in verifying the arc of the meridian by the astronomers at the Cape of Good Hope a few years ago.

THE ARTESIAN WELL.

A most valuable source of water supply are the artesian wells, which are perpendicular borings into the ground, through which water rises from various depths, according to circumstances, above the surface of the soil. The possibility of success in a particular district depends on its geological structure. All rocks contain more or less water. Arenaceous rocks receive water mechanically, and, according to their compactness and purity, part with a larger or smaller proportion of it. A cubic yard of pure sea-sand can contain about one-third of its bulk of water. It would part with nearly the whole of this into a well sunk in it and regularly pumped from. Chalk and other rocks, composed of fine particles closely compacted together, contain as large a proportion of water; but from the power of capillary attraction little or none of this water would be drained into a well sunk in such rock. From the existence, however, of numerous crevices in chalk through which the water freely flows, and from the general presence of a larger quantity of water than the porous rock is able to retain, wells sunk in chalk often yield water.

There is yet a third class of rocks which are perfectly impervious to water: such are clays, which are absolutely retentive, neither allowing water to be obtained from them nor to pass through them. The most famous artesian well, perhaps, is that of Grenelle, near Paris, which was bored in 1833–41, and whose water is brought from the gault at a depth of 1,798 feet. It yields 516½ gallons of water in a minute, propelled thirty-two feet above the surface; temperature, 81°·7 F. An artesian well bored at Pesth in 1868–79 yields, at a depth of 3,182 feet, water of a temperature of 165° F. In the United States numerous artesian wells have been sunk, some of great depth, among which are two in St. Louis, Missouri, 2,197 and 3,843½ feet deep respectively; several in Chicago of from 700 to 1,200 feet in depth; one in Louisville, Kentucky, 2,086 feet deep; one in Columbus, Ohio, 2,775½ feet in depth, with many others from 500 to 2,000 feet deep.

THE LAST WORD ON ELECTRICITY.

As to the question of the real nature of electricity, recent experiments and further knowledge of its properties rather open fresh avenues to new hypotheses than point to the truth of any one special theory. Some identify electricity with energy, some with matter, and some with the subtle all-pervading "ether." At all events it has been computed that in every single cubic foot of ether there are locked up 10,000 foot-tons of energy! The latest researches give well-founded hopes that this inconceivably vast storehouse of power will one day be accessible to man. And herein lies the splendid possibility of a new and mighty successor to the decreasing energy of our coal-fields, with the speedy extinction of which alarmists threaten us. By creating in a room a powerful electrostatic field alternating very rapidly, Professor Nicholas Tesla brought it to such a state that illuminating appliances could be placed anywhere, and kept lighted without being electrically connected with anything! He suspended two sheets of metal, each connected with a terminal of the electric coil, between which an exhausted tube, carried anywhither, remained always luminous. A true flame can now therefore be produced without chemical aid—a flame yielding light and heat without the consumption of material or any chemical process! Further, these and similar experiments on electric radiation, which now advances so brilliantly to the forefront, by Tesla and Crookes, etc., point to the bewildering possibility of telegraphy without wires, without cables, without posts. There is considerable evidence to show that, could the electric ether-waves be obtained sufficiently short, the rays would fall within the limits of visibility, and thus place the final crown of proof on the magnificent experiments of Hertz and others, who would make light an electric phenomenon.

As regards the effect on the human body of alternating currents of very high frequency (which at best have a very doubtful reputation) it has been found that, as the rapidity of the alternation increases, they become, not more, but less dangerous. In fact, Tatum has shown that their fatal effects are nearly inversely proportionate to their frequency. Thus, with currents alternating about 5,000 per second, the current needed to become fatal is about 10 times greater than at the ordinary low frequency of about 120 per second. With still higher frequencies used by Tesla (up to 20,000 per sec.) the currents are incomparably less dangerous than at low frequencies; but still altogether harmless.

PLAIN LAW FOR PLAIN PEOPLE.

The lawless science of our law,
That codeless myriad of precedent,
That wilderness of single instances,
Through which a few, by wit or fortune led,
May beat a pathway out to wealth and fame.
—TENNYSON.

A DEFINITION WITH A PURPOSE.

Blackstone defines *law* as the rules of human action or conduct, but what is commonly understood by the term is the civil or municipal regulations of a nation as applied to a particular country. The forms of law which govern civil contracts and business intercourse are distinguished as statute and common. Statute law is the written law of the land, as enacted by State or national legislative bodies. The common law is grounded on the general customs of England, and includes the law of nature, the law of God, the principles and maxims of the law and the decisions of the superior courts. It overrides both the canon and the civil law where they go beyond or are inconsistent with it. To the man involved in litigation the best advice is to go to the best lawyer he can find. But an ounce of prevention is worth a pound of cure, and the purpose of the following pages is to furnish the ounce of prevention. Knowledge is power in nothing so much as in business law, especially since the law presumes that no man is ignorant of the law.

BUSINESS LAW IN BRIEF.

It is a fraud to conceal a fraud.
Ignorance of the law excuses no one.
A contract made on a Sunday is void.
A contract made with a lunatic is void.
The act of one partner binds all the others.
An agreement without consideration is void.
The law compels no one to do impossibilities.
Agents are liable to their principals for errors.
Principals are liable for the acts of their agents.
A receipt for money paid is not legally conclusive.
Signatures made with a lead pencil are good in law.
The seal of a party to a written contract imports consideration.
If no time of payment is specified in a note it is payable on demand.

An outlawed debt is revived should the debtor make a partial payment.

A check indorsed by the payee is evidence of payment in the drawer's hands.

A lease of land for a longer term than one year is void unless in writing.

Notes obtained by fraud, or made by an intoxicated person, are not collectable.

Each individual in a partnership is liable for the whole amount of the debts of the firm.

An indorser can avoid liability by writing "without recourse" beneath his signature.

A note which does not state on its face that it bears interest, will bear interest only after due.

A contract made with a minor cannot be enforced against him. A note made by a minor is voidable.

An indorser of a note is exempt from liability if notice of its dishonor is not mailed or served within twenty-four hours of its non-payment.

In case of the death of the principal maker of a note the holder is not required to notify a surety that the note is not paid, before the settlement of the maker's estate.

If negotiable paper, pledged to a bank as security for the payment of a loan or debt, falls due, and the bank fails to demand payment and have it protested when dishonored, the bank is liable to the owner for the full amount of the paper.

Sometimes the holder of paper has the right to demand payment before maturity; for instance, when a draft has been protested for non-acceptance and the proper notices served, the holder may at once proceed against the drawer and indorsers.

Negotiable paper, payable to bearer or indorsed in blank, which has been stolen or lost, cannot be collected by the thief or finder, but a holder who receives it in good faith before maturity, for value, can hold it against the owner's claims at the time it was lost.

Want of consideration—a common defense interposed to the payment of negotiable paper—is a good defense between the original parties to the paper; but after it has been transferred before maturity, to an innocent holder, for value, it is not a defense.

If a note or draft is to be paid in the State where it is made, the contract will be governed by the laws of that State. When negotiable paper is payable in a State other than that in which it is made, the laws of that State will govern it. Marriage contracts, if valid where they are made, are valid everywhere. Contracts relating to personal property are governed by the laws of the place where made, except those relating to real estate, which are governed by the laws of the place where the land is situated.

AGREEMENTS AND CONTRACTS.

A contract or agreement is where a promise is made on one side and assented to on the other, or where two or more persons enter into engagement with each other by a promise on either side. In a written

contract assent is proved by the signature or mark. In verbal agreements it may be given by a word or a nod, by shaking of hands, or by a sign. The old saw, "Silence gives consent," is often upheld in law.

The conditions of a contract, as applying to individuals, are: 1. Age; 2. Rationality; and 3, as to corporations, the possession of general or special statutory powers.

Persons under age are incompetent to make contracts, except under certain limitations. Generally such persons are incapable of making binding contracts.

As to rationality, the general principle of law is that all persons not rendered incompetent by personal disability, or by considerations of public policy, are capable of making a contract.

Corporations have powers to make contracts strictly within the limits prescribed by their charters, or by special or general statute.

The first step toward a contract is the proposition or offer, which may be withdrawn at any time before it is agreed to. When the proposition is verbal, and no time is specified, it is not binding unless accepted at once. To give one the option or refusal of property at a specified price, is simply to give him a certain time to make up his mind whether he will buy the property or not. To make the option binding he must accept within the time named. The party giving the option has the right to withdraw it, and sell the property to another, at any time previous to its acceptance, if the offer is gratuitous, and there is no consideration to support it.

If a letter of acceptance is mailed, and immediately after a letter withdrawing the offer is received, the contract is binding. An acceptance takes effect from the time it is mailed, not from the time it is received; it must, however, be in accordance with the original proposition, for any new matter introduced would constitute a new offer. When the offer is accepted, either verbally or in writing, it is an express assent, and is binding.

A contract under a mistake of law is not void. Everybody is presumed to know the law. This, however, applies only to contracts permitted by law and clear of fraud.

A refusal of an offer cannot be retracted without the consent of the second party. Once a proposition is refused, the matter is ended. And no one has the right to accept an offer except the person to whom it was made.

The consideration is the reason or thing for which the parties bind themselves in the contract, and it is either a benefit to the promisor or an injury to the other party. Considerations are technically divided into *valuable* and *good*, and it sometimes happens that the consideration need not be expressed, but is implied. A valuable consideration is either money or property or service to be given, or some injury to be endured. A promise to marry is considered a valuable consideration. A good consideration means that the contract is entered into because of consanguinity or affection, which will support the contract when executed, but will not support an action to enforce an executory contract. Whether a consideration is sufficient or not is tested by its being a benefit to the promisor or an injury to the other party. If it has a legal value, it makes no difference how small that value may be. The promisor need not always be benefited, as, for instance, the indorser of a note, who is liable although he gets no benefit. But if a person promises to do something himself for which no consideration is to be received, there is no cause of action for breach of the contract.

There are several causes which void contracts, first among which is fraud. Fraud is defined to be "every kind of artifice employed by one person for the purpose of wilfully deceiving another to his injury." No fraudulent contract will stand in law or in equity. The party upon whom the fraud has been practiced must void the contract as soon as he discovers the fraud, for if he goes on after having knowledge of the fraud he cannot afterwards void it. But the one who perpetrates the fraud cannot plead that ground for voiding it. Contracts in restraint of trade are void, as also are contracts in opposition to public policy, impeding the course of justice, in restraint of marriage, contrary to the insolvent acts, or for immoral purposes. Any violation of the essential requisites of a contract, or the omission of an essential requisite, will void it.

DON'T make a contract with a person of unsound mind or under the influence of liquor, or otherwise under restraint of liberty, mind or body. Use caution in making contracts with an illiterate, blind or dea and dumb person, and see to it that witnesses are present.

DON'T put a forced construction on a contract—the intent of the parties is a contract.

DON'T suppose that you can withdraw a proposition made in writing and sent by mail after the party to whom it was made has mailed an unconditional acceptance.

DON'T suppose that a conditional acceptance of a proposition is binding on the party making the proposition.

DON'T forget that the courts will construe a contract according to the law prevailing where it was made.

DON'T forget that the law says, "no consideration, no contract," and that the courts will not enforce a contract which is too severe in its provisions.

DON'T sign an agreement unless you have carefully weighed its provisions, which should all be fixed and certain.

NOTES AND NEGOTIABLE PAPER.

The superstructure of business as it exists today rests on the broad foundation of confidence—the result of what may be called the evolution of commerce, and the principal stages in this evolution are an interesting study. First there was only barter in kind, as still practiced among savages—for example, the exchange of a bushel of corn for a handful of arrow-heads. Then came the introduction of money as a medium of exchange; and today we have the substitution of negotiable paper as documentary evidence of indebtedness, including promissory notes, due bills, drafts, checks, certificates of deposit, bills of exchange, bank bills, treasury notes (greenbacks), and all other evidences of debt, the ownership of which may be transferred from one person to another.

The mere acknowledgement of debt is not sufficient to make negotiable paper; the *promise* of payment or an *order* on some one to pay is indispensable. This promise must be for money only. The amount must be exactly specified. The title must be transferable. This feature must be visible on the face of the paper by the use of such words as "bearer" or "order." In some of the States peculiar phrases are ordered by statute, as "Payable without defalcation or discount," or "Payable at ——," naming the bank or office.

A written agreement, signed by one person, to pay another, at a fixed time, a stated sum of money, is a *promissory note*. It becomes negotia-

ble by being made payable to an order on some one or to bearer. As it is a contract, a consideration is one of its essential elements. Yet, although it be void as between the two first parties, being negotiable and coming into the hands of another person who gives value for it, not knowing of its defect, it has full force and may be collected.

The date is of great consequence. In computing time the day of date is not counted, but it is the fixed point beginning the time at the end of which payment must be made. Omission of the date does not destroy a note, but the holder must prove to the time of its making. The promise to pay must be precise as to time which the note is to run. It must be at a fixed period, or conditional upon the occurrence of something certain to happen, as "at sight" "five days after sight," "on demand," "three months after date," "ten days after the death of John Doe." The time not being specified, the note is considered "payable on demand."

The maker, the person who promises and whose signature the note bears, must be competent. Insane people and idiots are *naturally*, and aliens, minors and married women may be *legally*, incompetent. The maker is responsible and binds himself to pay the amount stated on the note at its maturity. He need not pay it before it becomes due, but should he do so and neglect to cancel the note, he would be again responsible if any other person, without knowledge of such payment, acquired it for value before maturity. Even a receipt for payment from the first payee would not stand good against the subsequent holder.

The payee is the person in whose favor the note is drawn—the legal holder, the person to whom the money must be paid. When a note is made payable simply to bearer, without naming the payee, any one holding the note honestly may collect.

A subsequent party, one who comes into possession of the note after the original holder, has a better claim than the first one, for the reason that between the maker and the first payee there may have been, in the contract, some understanding or condition militating against the payment when it would become due, but the third person, knowing nothing of this, gives his value and receives the note. The law will always sustain the subsequent party.

The indorser is held responsible if the maker fails to pay when the note arrives at maturity. A note payable to order must be indorsed by a holder upon passing it to another, and, as value has been given each time, the last holder will look to his next preceding one and to all the others.

A note, being on deposit as collateral security, becoming due, the temporary holder is the payee and must collect.

An indorsement is a writing across the back of the note, which makes the writer responsible for the amount of the note. There are various forms of indorsement:

1. *In blank*, the indorser simply writing his name on the back of the note.
2. *General*, or *in full*, the indorser writing above his signature, "Pay —— ——" or "Pay —— —— or order."
3. *Qualified*, the words "without recourse" being used after the name of the payee in the indorsement.
4. *Conditional*, a condition being stated, as: "Pay —— ——, unless payment forbidden before maturity."
5. *Restrictive*, as: "Pay —— —— only."

The blank indorsement, the full indorsement and the general indorsement are practically the same; each entitles the holder of the note to the money, and to look to the indorser for payment if the maker of the note defaults. It has even been held that in a general indorsement the holder had the right to fill in the words "or order" if he saw fit. The qualified indorsement releases the indorser from any liability in case the maker of the note defaults. The conditional and restrictive indorsement are used only in special cases. Each indorser is severally and collectively liable for the whole amount of the note indorsed if it is dishonored, provided it is duly protested and notice given to each. The indorser looks to the man who indorsed it before him, and so back to the original maker of the note. As soon as a note is protested, it is vitally necessary that notice should be sent to each person interested at once.

TO BE ON THE SAFE SIDE, it is well to see to it that any note offered for negotiation—

Is dated correctly;

Specifies the amount of money to be paid;

Names the person to whom it is to be paid;

Includes the words "or order" after the name of the payee, if it is desired to make the note negotiable;

Appoints a place where the payment is to be made;

States that the note is made "for value received;"

And is signed by the maker or his duly authorized representative.

In some States phrases are required in the body of the note, such as, "without defalcation or discount;" but, as a general thing, that fact is understood without the statement.

PARTNERSHIP.

The general rule is that every person of sound mind, and not otherwise restrained by law, may enter into a contract of partnership.

There are several kinds of partners:

1. *Ostensible* partners, or those whose names are made public as partners, and who in reality are such, and who take all the benefits and risks.

2. *Nominal* partners, or those who appear before the public as partners, but who have no real interest in the business.

3. *Dormant*, or *silent* partners, or those whose names are not known or do not appear as partners, but who, nevertheless, have an interest in the business.

4. *Special*, or *limited* partners, or those who are interested in the business only to the amount of the capital they have invested in it.

5. *General* partners, who manage the business, while the capital, either in whole or in part, is supplied by a special partner or partners. They are liable for all the debts and contracts of the firm.

A nominal partner renders himself liable for all the debts and contracts of the firm.

A dormant partner, if it becomes known that he has an interest, whether creditors trusted the firm on his account or not, becomes liable equally with the other partners.

The regulations concerning special or limited partnerships, in any particular State where recognized, are to be found in the statutes of such State; and strict compliance with the statutes is necessary in order to

avoid incurring the responsibilities attaching to the position of general partner.

A person who lends his name as a partner, or who suffers his name to continue in the firm after he has actually ceased to be a partner thereof, is still responsible to third persons as a partner.

A partner may buy and sell partnership effects; make contracts in reference to the business of the firm; pay and receive money; draw and indorse, and accept bills and notes; and all acts of such a nature, even though they be upon his own private account, will bind the other partners, if connected with matters apparently having reference to the business of the firm, and transacted with other parties ignorant of the fact that such dealings are for the particular partner's private account. The representation or misrepresentation of any fact made in any partnership transaction by one partner, or the commission of any fraud in such transaction, will bind the entire firm, even though the other partners may have no connection with, or knowledge of the same.

If a partner sign his individual name to negotiable paper, all the partners are bound thereby, if such paper appear on its face to be on partnership account. If negotiable paper of a firm be given by one partner on his private account, and in the course of its circulation pass into the hands of a *bona fide* holder for value, without notice or knowledge of the fact attending its creation, the partnership is bound thereby.

One partner cannot bind the firm by deed, though he may by deed execute an ordinary release of a debt due the partnership.

If no time be fixed in articles of copartnership for the commencement thereof, it is presumed to commence from the date and execution of the articles. If no precise period is mentioned for continuance, a partner may withdraw at any time, and dissolve such partnership at his pleasure; and even if a definite period be agreed upon, a partner may, by giving notice, dissolve the partnership as to all capacity of the firm to bind him by contracts thereafter made. The withdrawing partner subjects himself, however, to a claim for damages by reason of his breach of the covenant.

The death of a partner dissolves the partnership, unless there be an express stipulation that, in such an event, the representatives of the deceased partner may continue the business in connection with the survivors for the benefit of the widow and children.

A partnership is dissolved by operation of law; by a voluntary and *bona fide* assignment by any partner of his interest therein; by the bankruptcy or death of any of the partners, or by a war between the countries of which the partners are subjects.

Immediately after a dissolution, notice of the same should be published in the papers and a special notice sent to every person who has had dealings with the firm. If these precautions be not taken, each partner will still continue liable for the acts of the others to all persons who have had no notice of such dissolution.

DON'T enter into a partnership without carefully drawn articles, and don't sign the articles until the partnership funds are on deposit.

DON'T enter a firm already established unless you are willing to become responsible for its debts.

DON'T do anything out of the usual run of business without the consent of your partners.

DON'T mix private matters with partnership affairs, and don't continue in a partnership where trust and confidence are lacking.

DON'T continue a partnership after expiration of articles, and do not make any change without due public notice.

DON'T dissolve a partnership without due public notice or without designating a member to settle all matters outstanding.

DON'T forget that a partner may be called upon to make good partnership losses with his individual property, and that each partner may be held for the acts of the other parners as well as for his own.

AGENCY AND ATTORNEY.

By agency is meant the substitution of one person by and for another, the former to transact business for the latter. An agency may be established by *implication*—an express agreement with a person that he is to become the agent of another not being necessary—or *verbally*, or by *writing*. A verbal creation of agency suffices to authorize the agent to make a contract even in cases where such contract must be in writing.

Agency is of three kinds—special, general and professional. A special agency is an authority exercised for a special purpose. If a special agent exceed the limits of his authority, his principal is not bound by his acts.

A general agency authorizes the transaction of all business of a particular kind, or growing out of a particular employment. The principal will be bound by the acts of a general agent, though the latter act contrary to *private* instructions, provided he keep, at the same time, within the general limits of his authority.

Professional agents are those licensed by the proper authority to transact certain kinds of business for a compensation. The following are among this class of agents: 1. Attorneys. 2. Brokers. 3. Factors. 4. Auctioneers. 5. Masters of ships.

In regard to the subject of an agency, the general rule is that whatever a man may do in his own right he may also transact through another. Things of a personal nature, implying personal confidence on the part of the person possessing them, cannot be delegated.

Infants, married women, lunatics, idiots, aliens, belligerents and persons incapable of making legal contracts cannot act as principals in the appointment of agents. Infants and married women may, however, become principals in certain cases.

Agency may be terminated in two ways—(1) by the act of the principal or agent; (2) by operation of law. In the latter case the termination of the agency is effected by lapse of time, by completion of the subject-matter of the agency, by the extinction of the subject-matter, or by the insanity, bankruptcy or death of either party.

DON'T do through another what would be illegal for you to do yourself.

DON'T lose any time in repudiating illegal acts of your agent.

DON'T make an illegal act of your agent's your own by accepting the benefit thereof.

DON'T transact business through an agent unless he can show that he stands in his principal's stead in the matter in hand.

DON'T, as agent, appoint sub-agents without the consent of your principal.

DON'T go beyond your authority in an agency uless you are willing to become personally responsible.

DON'T accept an agency or act as an attorney in fact in complicated matters unless your powers are clearly defined in writing.

LANDLORD AND TENANT.

Leases for one year or less need no written agreement. Leases for more than a year must be in writing; if for life, signed, sealed and witnessed in the same manner as any other important document.

Leases for over three years must be recorded. No particular form is necessary.

If no agreement in writing for more than a year can be produced, the tenant holds the property from year to year at the will of the landlord. If there is no agreement as to time, the tenant, as a rule, holds from year to year.

A tenancy at will may be terminated by giving the tenant one month's notice in writing, requiring him to remove from the premises occupied.

A tenant is not responsible for taxes, unless it is so stated in the lease.

The tenant may underlet as much of the property as he desires, unless it is expressly forbidden in the lease. Tenants at will cannot underlet.

A married woman cannot lease her property under the common law, but this prohibition is removed by statute in most of the States. A husband cannot make a lease which will bind his wife's property after his death.

A lease made by a minor is not binding after the minor has attained his majority. It binds the lessee, however, unless the minor should release him. Should the minor receive rent after attaining his majority, the lease will be thereby ratified. A lease given by a guardian will not extend beyond the majority of the ward.

A new lease renders void a former lease.

In case there are no writings, the tenancy begins from the day possession is taken. Where there are writings and the time of commencement is not stated, the tenancy will be held to commence from the date of said writings.

Leases on mortgaged property, whereon the mortgage was given prior to the lease, terminate when the mortgage is foreclosed.

Where a tenant assigns his lease, even with the landlord's consent, he will remain liable for the rent unless his lease is surrendered or cancelled.

There are many special features of the law of landlord and tenant in relation to agricultural tenancy. Generally an outgoing tenant cannot sell or take away the manure. A tenant whose estate has terminated by an uncertain event which he could neither foresee nor control is entitled to the annual crop which he sowed while his estate continued, by the law of emblements. He may also, in certain cases, take the emblements or annual profits of the land after his tenancy has ended, and, unless restricted by some stipulation to the contrary, may remove such fixtures as he has erected during his occupation for convenience, profit or comfort; for, in general, what a tenant has added he may remove, if he can do so without injury to the premises, unless he has actually built it in so as to make it an integral part of what was there originally.

The following are immovable fixtures: Agricultural erections, foldyard walls, cart house, barns fixed in the ground, beast house, carpenter shop, fuel house, pigeon house, pineries substantially fixed, wagon house, box borders not belonging to a gardener by trade, flowers, trees, hedges,

ale-house bar, dressers, partitions, locks and keys, benches, affixes to the house, statue erected as an ornament to grounds, sun dial, chimney piece not ornamental, closets affixed to the house, conduits, conservatory, substantially affixed, doors, fruit trees if a tenant be not a nurseryman by trade, glass windows, hearths, millstones, looms substantially affixed to the floor of a factory, threshing machines fixed by bolts and screws to posts let into the ground.

DON'T occupy premises until a written lease is in your possession, and don't depend on promises of a landlord unless they are part of such lease.

DON'T accept a married woman as tenant unless the law of the State permit her to make an executory contract.

DON'T think that you can legally eject sub-tenants unless you have given them notice of the tenant's forfeiture of his lease.

DON'T make such improvements in premises occupied by you as the law would regard as immovable fixtures, unless you are willing to turn them over to the landlord when your lease expires. A building erected on foundations sunk into the ground would become part of the realty and thus belong to the landlord.

DON'T think, however, that you have no right to remove trade fixtures erected by you.

DON'T accept less than thirty days' notice when you rent by the month.

DON'T forget that where premises are let for illegal use the law will not aid you in collecting arrears for rent.

LAW RELATING TO FARMS, ETC.

In a deed to agricultural property the boundaries should be clearly determined. The question, What does the farmer get? is answered by these boundaries, and the deed to a farm always includes the dwelling houses, barns and other improvements thereon belonging to the grantor, even though these are not mentioned. It also conveys all the fences standing on the farm, but all might not think it also included the fencing-stuff, posts, rails, etc., which had once been used in the fence, but had been taken down and piled up for future use again in the same place. But new fencing material, just bought, and never attached to the soil, would not pass. So piles of hop poles, stored away, if once used on the land, and intended to be again so used, have been considered a part of it, but loose boards or scaffold poles, merely laid across the beams of a barn and never fastened to it, would not be, and the seller of the farm might take them away. Standing trees, of course, also pass as part of the land; so do trees blown down or cut down, and still left in the woods where they fell, but not if cut and corded up for sale; the wood has then become personal property.

If there be any manure in the barnyard or in the compost heap on the field, ready for immediate use the buyer ordinarily, in the absence of any contrary agreement, takes that also as belonging to the farm, though it might not be so if the owner had previously sold it to some other party, and had collected it together in a heap by itself, for such an act might be a technical severance from the soil, and so convert real into personal estate; and even a lessee of a farm could take away the manure made on the place while he was in occupation. Growing crops also pass by the deed of a farm unless they are expressly reserved, and when it is

not intended to convey those it should be so stated in the deed itself; a mere oral agreement to that effect would not be in most States valid in law. Another mode is to stipulate that possession is not to be given until some future day, in which case the crops or manures may be removed before that time.

An adjoining road is, to its middle, owned by the farmer whose land is bound, unless there are reservations to the contrary in the deeds through which he derives title. But this ownership is subject to the right of the public to the use of the road.

If a tree grows so as to come over the land of a neighbor, the latter may cut away the parts which so come over, for he owns his land and all that is above or below it. If it be a fruit tree, he may cut every branch or twig which comes over his land, but he cannot touch the fruit which falls to the land. The owner of the tree may enter peaceably upon the land of the neighbor and take up the branches and fruit.

LIEN LAWS.

Any one who, as contractor, sub-contractor or laborer, performs any work, or furnishes any materials, in pursuance of, or in conformity with, any agreement or contract with the owner, lessee, agent or one in possession of the property, toward the erection, altering, improving or repairing of any building, shall have a lien for the value of such labor or materials on the building or land on which it stands to the extent of the right, title and interest of the owner, lessee or person in possession at the time of the claimant's filing his notice with the clerk of the county court. Such lien is called a mechanic's lien.

The notice should be filed within thirty days after completion of the work or the furnishing of the materials, and should state the residence of the claimant, the amount claimed, from whom due, when due, and to whom due, the name of the person against whom claimed, the name of the owner, lessee or person in possession of the premises, with a brief description of the latter.

Liens cease in one year after the filing of the notice, unless an action is begun, or the lien is continued by an order of court.

The following classes of persons are generally entitled to liens: 1. Bailees, who may perform labor and services, on the thing bailed, at the request of the bailor. 2. Innkeepers, upon the baggage of guests they have accommodated. 3. Common carriers, upon goods carried, for the amount of their freight and disbursements. 4. Vendors, on the goods sold for payment of the price where no credit has been expressly promised or implied. 5. Agents, upon goods of their principals, for advancements for the benefit of the latter. 6. All persons are entitled to the right of lien who are compelled by law to receive property and bestow labor or expense on the same.

The right of lien may be waived: 1. By express contract. 2. By neglect. 3. By new agreement. 4. By allowing change of possession. 5. By surrendering possession.

The manner of the enforcement of a lien, whether it be an innkeeper's, agent's, carrier's, factor's, etc., depends wholly upon the nature and character of the lien.

DON'T purchase real estate unless the records have been thoroughly searched for all liens known to the law, or until all notices of action against the same have been discharged.

DON'T think that you have no right to sell perishable property on which you have a lien. Your lien will attach to the proceeds.

DON'T foreclose a lien without proper notice.

DON'T make payments to a contractor before you have full knowledge of all liens filed.

DON'T forget that liens take precedence according to priority, and that interest always runs on a judgment.

DEEDS—TRANSFER OF PROPERTY.

A deed is a writing by which lands, tenements or hereditaments are conveyed, sealed and delivered. It must be written or printed on parchment or paper; the parties must be competent to contract; there must be a proper object to grant; a sufficient consideration; an agreement properly declared; if desired, it must have been read to the party executing it; it must be signed and sealed; attested by witnesses, in the absence of any statute regulation to the contrary, properly acknowledged before a competent officer; and recorded within the time and in the office prescribed by the State within executed.

The maker of a deed is the *grantor*; the party to whom it is delivered the *grantee*. If the grantor have a wife, she must, in the absence of a statute to the contrary, sign and acknowledge the deed; otherwise, after the husband's death, she may claim the use of one-third, during her life.

By a *general warranty* deed the grantor covenants to insure the lands against all persons whatsoever; by a *special warranty* deed he warrants only against himself and those claiming under him. In deeds made by executors, administrators or guardians there is generally no warranty *A quit-claim deed* releases all the interest which the grantor has in the land, whatever it may be.

A *deed of trust* is given to a person called a trustee, to hold in fee simple, or otherwise, for the use of some other person who is entitled to the proceeds, profits or use.

A deed may be made void by alterations made in it after its execution; by the disagreement of the parties whose concurrence is necessary; or by the judgment of a competent tribunal.

Interlineations or erasures in a deed, made before signing, should be mentioned in a note, and witnessed in proper form. After the acknowledgement of a deed the parties have no right to make the slightest alteration. An alteration of a deed after execution, if made in favor of the grantee, vitiates the deed. If altered before delivery, such alteration destroys the deed as to the party altering it.

Abstracts of titles are brief accounts of all the deeds upon which titles rest, and judgments and instruments affecting such titles.

The evidences of title are usually conveyances, wills, orders or decrees of courts, judgments, judicial sales, sales by officers appointed by law, acts of the Legislature and of Congress.

DON'T accept a deed unless all the following conditions are complied with: 1. It must be signed, sealed and witnessed. 2. Interlineations must be mentioned in the certificate of acknowledgement. 3. All the partners must join in a deed from a partnership. 4. A deed from a corporation should bear the corporate seal and be signed by officers designated in the resolution of the directors authorizing it. 5. A deed from a married woman should be joined in by the husband. 6. A deed from

an executor should recite his power of sale. 7. The consideration must be expressed.

DON'T deed property to your wife direct. A deed to your wife does not cut off obligations contracted previously.

DON'T pay consideration money on a conveyance of real estate until the record has been searched to the moment of passing title, and unless you know of your own knowledge that no judgments, mortgages or tax liens are outstanding against the property.

DON'T delay in having a deed or mortgage recorded.

DON'T attempt to give a better title than you have yourself.

MORTGAGES.

A mortgage is a conveyance of property, either real or personal, to secure payment of a debt. When the debt is paid the mortgage becomes void and of no value. In real estate mortgages the person giving the mortgage retains possession of the property, receives all the debts and other profits, and pays all taxes and other expenses. The instrument must be acknowledged, like a deed, before a proper public officer, and recorded in the office of the county clerk or recorder, or whatever officer's duty it is to record such instruments. All mortgages must contain a redemption clause, and must be signed and sealed. The time when the debt becomes due, to secure which the mortgage is given, must be plainly set forth and the property conveyed must be clearly described, located and scheduled.

Some mortgages contain a clause permitting the sale of the property without decree of court when a default is made in the payment either of the principal sum or the interest.

A foreclosure is a statement that the property is forfeited and must be sold.

When a mortgage is assigned to another person, it must be for a valuable consideration; and the note or notes which it was given to secure must be given at the same time.

If the mortgaged property, when foreclosed and brought to sale, brings more money than is needed to satisfy the debt, interest and costs, the surplus must be paid to the mortgagor.

Satisfaction of mortgages upon real or personal property may be either—

1. By an entry upon the margin of the record thereof, signed by the mortgagee or his attorney, assignee or personal representative, acknowledging the satisfaction of the mortgage, in the presence of the recording officer; *or*—

2. By a receipt endorsed upon the mortgage, signed by the mortgagee, his agent or attorney, which receipt may be entered upon the margin of the record; *or*—

3. It may be discharged upon the record thereof whenever there is presented to the proper officer an instrument acknowledging the satisfaction of such mortgage, executed by the mortgagee, his duly authorized attorney in fact, assignee or personal representative, and acknowledged in the same manner as other instruments affecting real estate.

Chattel mortgages are mortgages on personal property. Most of the rules applicable to mortgages on real estate apply also to those on personal property, though in some States there are laws regulating personal mortgages. Any instrument will answer the purpose of a chattel

mortgage which would answer as a bill of sale, with a clause attached providing for the avoidance of the mortgage when the debt is paid.

A chattel mortgage will not cover property subsequently acquired by the mortgagor. Mortgages of personal property should contain a clause providing for the equity of redemption. A mortgagee may sell or transfer his mortgage to another party for a consideration, but such property cannot be seized or sold until the expiration of the period for which the mortgage was given. Mortgages given with intent to defraud creditors are void.

DON'T lose any time in having a mortgage properly recorded.

DON'T pay installments on chattel mortgages unless the same are endorsed thereon.

DON'T lose sight of the fact that a chattel mortgage is a conditional bill of sale.

DON'T accept a chattel mortgage the term whereof is for more than a year.

DON'T neglect to have a chattel mortgage signed, sealed and witnessed, and don't fail to see to it that the schedule contains every article embraced under it.

DON'T fail to see to it that goods or chattels mortgaged to you are properly insured.

DON'T suppose that a chattel mortgage is valid when the debt to be secured by it is not.

DON'T give a chattel mortgage payable on demand unless you are prepared to forfeit the chattels at any moment.

DON'T think that the destruction by fire or otherwise of the chattels mortgaged wipes out the debt.

DON'T forget that foreclosure in the case of a chattel mortgage is unnecessary except to cut off the claims of other creditors.

ASSIGNMENTS.

An assignment is a transfer of property made in writing. In effect it is passing to another person all of one's title or interest in any sort of real or personal property, rights, actions or estates. However, some things are not assignable; an officer's pay or commission, a judge's salary, fishing claims, Government bounties, or claims arising out of frauds or torts. Personal trusts cannot be assigned, as a guardianship or the right of a master in his apprentice.

Unlike many other legal devices the holder of an assignment is not bound to show that a valuable consideration was given. The owner of a cause of action may give it away if he pleases, and in the positive absence of evidence to the contrary the court will presume that the assignment was for a sufficient consideration.

Proof will be called for only when it appears that the assignment was a mere sham or fraudulent. No formality is required by law in an assignment. Any instrument between the contracting parties which goes to show their intention to pass the property from one to another will be sufficient. It may be proved, for instance, by the payee of a note, that he indorsed (or delivered without indorsement) the note to the assignee, and this is sufficient evidence of assignment.

In every assignment of an instrument, even not negotiable, the assignee impliedly warrants the validity of the instrument and the obligation of the third party to pay it. He warrants that there is no legal defense

against its collection arising out of his connection with the parties; that all parties were legally able to contract, and that the amount is unpaid.

An assignment carries with it all the collateral securities and guarantees of the original debt, even though they are not mentioned in the instrument.

Where property is assigned for the benefit of creditors, its actual transfer to the assignee must be made immediately. When an assignment is made under the common law, the assignor may prefer certain creditors; but in a state where this sort of an assignment is governed by statute, no preference can be shown. An assignment for the benefit of creditors covers all of the assignor's property, wherever or whatever it it may be, that is not exempt from execution.

When insured property is sold the insurance policy should be assigned. This can only be done with the consent of the insurer, and that consent must be at once obtained.

Correct schedules of the property assigned should accompany and be attached to every assignment.

INNS, HOTELS AND BOARDING-HOUSES.

An inn, or hotel, is a place of entertainment for travelers. If an innkeeper opens his house for travelers, it is an implied engagement to entertain all persons who travel that way, and upon this universal assumption an action will lie against him for damages if he, without good reason, refuses to admit a traveler.

Innkeepers are responsible for the safe custody of the goods of their guests, and can limit their liability only by an express agreement or special contract with their guests; but if goods are lost through negligence of the owner himself the innkeeper's liability ceases. An innkeeper may retain the goods of his guest until the amount of the guest's bill has been paid.

A boarding-house is not an inn, nor is a coffee-house or eating-room. A boarding-house keeper has no lien on the goods of a boarder except by special agreement, nor is he responsible for their safe custody. He is liable, however, for loss caused by the negligence of his servants. An innkeeper is liable for loss without such negligence.

BONDS.

A written instrument admitting an obligation on the part of the maker to pay a certain sum of money to another specified person at a fixed time, for a valuable consideration, is called a bond. The obligor is the one giving the bond; the beneficiary is called the obligee. This definition applies to all bonds, but generally these instruments are given to guarantee the performance or non-performance of certain acts by the obligor, which being done or left undone, as the case may be, the bond becomes void, but if the conditions are broken it remains in full force. As a rule, the bond is made out for a sum twice the amount of any debt which is apt to be incurred by the obligor under its conditions, the statement being set forth that the sum named is the penalty, as liquidated or settled damages, in the event of the failure of the obligor to carry out the conditions.

An act of Providence, whereby the accomplishment of a bond is rendered impossible, relieves the obligor of all liability.

A bond for the payment of money differs from a promissory note only in having a seal.

BILLS OF SALE.

A bill of sale is a formal written conveyance of personal property. If the property is delivered when sold, or if part of the purchase money is paid, a written instrument is not necessary to make the conveyance, but it is convenient evidence of the transfer of title. But, to protect the interests of the purchaser against the creditors of the seller, the bill is not sufficient of itself; there should also be a delivery of the property. If an actual and continued change of possession does not accompany the sale it is void as against the creditors of the seller and subsequent purchasers and mortgagees in good faith, unless the buyer can show that his purchase was made in good faith, without intent to defraud, and that there was some good reason for leaving the property in the hands of the seller.

CORPORATIONS.

Several persons joining together for the accomplishment of any business or social purpose can legally organize themselves into a corporation, a form of partnership which combines the resources of all, and yet gives a limited pecuniary liability, amounting only to the amount of stock owned by each stockholder. In the States the legislature of each Commonwealth enjoys the power of regulating the corporations, and in the Territories this power is, of course, vested in the General Government. The actual cost of organization amounts to something less than $10, most of which is in fees to the Secretary of State. When the stock has been subscribed, a meeting is called and each shareholder casts a vote for every share which he owns or holds a proxy for, for each person who is to be elected director, or he may give one director as many votes as the number of shares he is voting, multiplied by the number of directors to be elected, amounts to, or distribute his votes as he chooses. Thus, if he owns ten shares of stock and there are six directors to be elected, he has sixty votes, which he can give, either ten for each director, or twenty for each of three, or sixty for one, or in any other way that he sees fit, so that his whole vote will not be more than sixty votes. These directors meet as soon after the election as possible and choose a president, vice-president, secretary and treasurer, whereupon the corporation is ready for business.

The law in all the States on the subject of incorporating companies is very similar, and the necessary forms are to be obtained usually from the Secretary of State.

LAW OF FINDING.

The general rule is that the finder has a clear title against every one but the owner. The proprietor of a hotel or a shop has no right to demand property of others found on his premises. Such proprietor may make regulations in regard to lost property which will bind their employes, but they cannot bind the public. The finder has been held to stand in the place of the owner, so that he was permitted to prevail in an action against a person who found an article which the plaintiff had originally found, but subsequently lost. The police have no special rights in regard to articles lost, unless those rights are conferred by statute. Receivers of articles found are trustees for the owner or finder. They have no power to keep an article against the finder, any more than the finder has to retain an article against the owner.

WILLS AND HOW TO MAKE THEM.

Every description of property, whether real or personal, may be given by will. In the case of persons dying owing debts, however, the law gives to the executors sufficient of the personal property of the deceased to pay off all existing indebtedness, irrespective of the terms of the will; and where the personal property is not sufficient for this purpose, real property may be so appropriated.

Property may be bequeathed by will to all persons, including married women, infants, lunatics, idiots, etc.

Wills may be made by any person not disqualified by age or mental incapacity. Generally speaking, a person must have attained the age of twenty-one years before he or she can make a valid will of lands, and the same age in many States is required for a will of solely personal property.

In New York males of eighteen and females of sixteen are competent to bequeath personal property. "Sound and disposing mind and memory" are always essential to the validity of any will. For this reason idiots, lunatics, intoxicated persons (during intoxication) and persons of unsound or weak minds are incompetent to make wills. A will procured by fraud is also invalid, although the testator be fully competent to make a valid will. All wills must be in writing, except those made by soldiers in active service during war and by sailors while at sea. Such persons may make a verbal or *nuncupative* will, under certain restrictions as to witnesses, etc. No particular form of words is required.

A valid will must be subscribed or signed by the testator or some one for him, in his presence and at his request. The signature must be affixed in the presence of each of the witnesses. In case the will be signed by some one for him, the testator must *acknowledge* the signature to be his own in presence of the witnesses. The testator must declare to each of the subscribing witnesses that the instrument is his "last will and testament." This is of the utmost importance, and is called the "publication." There must be at least two (three are required in some of the States) subscribing witnesses, who must act as such at the testator's request, or at the request of some one in his presence. The subscribing witnesses must not be beneficially interested in the provisions of the will. These witnesses must all sign the will in the presence of the testator, and (in New York and some of the other States) in the presence of each other.

A codicil is an appendix annexed to the will after its execution, whereby the testator makes some change in, or addition to, his former disposition, and must be signed, published and attested in the same manner as the original will.

The revocation of a will may be express or implied—express, by the execution of a new and later will, or by the intentional destruction of the old one, or by a formal written revocation, signed and witnessed in the same manner as the will itself. An implied revocation is wrought by the subsequent marriage of the testator and the birth of children, or by either.

DON'T leave anything uncertain in a will, and don't neglect to declare it to be your last will and testament.

DON'T make a will without two (better three) witnesses, none of whom must be interested in it. See that each witness writes his full name and address.

DON'T make a new will unless you destroy or revoke the old one, and don't add a codicil unless it is executed in the same way as the original will.

DON'T neglect to make a new will if you mortgage or sell property devised or bequeathed in a prior one.

DON'T make a will which does not provide for children that may be born.

DON'T will property to a corporation whose charter does not permit it to take by devise or bequest.

DON'T fail to say "bequeath" for personal and "devise" for real property.

THE RIGHT OF DOWER.

Dower is one-third part of the husband's estate, and in general cannot be destroyed by the mere act of the husband. Hence, in the sale of real estate by the husband, his wife must, with the husband, sign the conveyance to make the title complete to the purchaser. In the absence of such signature the widow can claim full dower rights after the husband's death. Creditors, also, seize the property subject to such dowery rights.

The husband in his will sometimes gives his wife property in lieu of dowery. In this case she may, after his death, elect to take either such property or her dower, but she cannot take both. While the husband lives the wife's right of dower is only *inchoate;* it cannot be enforced. Should he sell the land to a stranger, she has no right of action or remedy until his death.

In all cases the law of the State *in which the land is situated* governs it, and, as in the case of heirship, full information must be sought for in statute which is applicable.

MARRIAGE AND DIVORCE.

Marriage may be entered into by any two persons, with the following exceptions: Idiots, lunatics, persons of unsound mind, persons related by blood or affinity within certain degrees prohibited by law, infants under the age of consent, which varies in the different States, and all persons already married and not legally divorced.

The violation of the marriage vow is cause for absolute divorce in all the States and Territories *except* South Carolina and New Mexico, which have no divorce laws.

Physical inability is a cause in all the States *except* California, Connecticut, Dakota, Iowa, Louisiana, New Mexico, New York, South Carolina, Texas and Vermont. In most of these States it renders marriage voidable.

Willful desertion, one year, in Arkansas, California, Colorado, Dakota, Florida, Idaho, Kansas, Kentucky, Missouri, Montana, Nevada, Utah, Wisconsin, Washington and Wyoming.

Willful desertion, two years, in Alabama, Arizona, Illinois, Indiana, Iowa, Michigan, Mississippi, Nebraska, Pennsylvania and Tennessee.

Willful desertion, three years, in Connecticut, Delaware, Georgia, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, New Jersey, Ohio, Oregon, Texas, Vermont and West Virginia.

Willful desertion, five years, in Virginia and Rhode Island, though the court *may* in the latter State decree a divorce for a shorter period.

Habitual drunkenness, in all the States and Territories *except* Maryland, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Texas, Vermont, Virginia and West Virginia.

"Imprisonment for felony," or "conviction of felony," in all the States and Territories (with limitations) *except* Dakota, Florida, Maine, Maryland, New Jersey, New Mexico, New York, North Carolina, South Carolina and Utah.

Fraud and fraudulent contract, in Arizona, Connecticut, Georgia, Idaho, Kansas, Kentucky, Ohio, Pennsylvania and Washington.

"Cruel and abusive treatment," "intolerable cruelty," "extreme cruelty," "repeated cruelty," or "inhuman treatment," in all the States and Territories *except* New Jersey, New Mexico, New York, North Carolina, South Carolina, Virginia and West Virginia.

Failure by the husband to provide: One year in California, Colorado, Dakota, Nevada and Wyoming; two years in Indiana and Idaho; no time specified in Arizona, Idaho, Massachusetts, Michigan, Maine, Nebraska, Rhode Island, Vermont and Wisconsin; willful neglect for three years, in Delaware.

Absence without being heard from: Three years in New Hampshire; seven years in Connecticut and Vermont, separation five years, in Kentucky; voluntary separation five years, in Wisconsin; when reasonably presumed dead by the court, in Rhode Island.

"Ungovernable temper," in Kentucky; "habitual indulgence in violent and ungovernable temper," in Florida; "cruel treatment, outrages or excesses as to render their living together insupportable," in Arkansas, Kentucky, Louisiana, Missouri, Tennessee and Texas; "indignities as render life burdensome," in Missouri, Oregon, Pennsylvania, Tennessee, Washington and Wyoming.

In Georgia an absolute divorce is granted only after the concurrent verdict of two juries at different terms of the court. In New York absolute divorce is granted for but one cause, adultery.

All of the causes above enumerated are for absolute or full divorce, and collusion and connivance are especially barred, and also condonation of violation of the marriage vow.

The courts of every State, and particularly of New York, are very jealous of their jurisdiction and generally refuse to recognize as valid a divorce against one of the citizens of the State by the court of another State, unless both parties to the suit were subject at the same time to the jurisdiction of the court granting the divorce.

PREVIOUS RESIDENCE REQUIRED.—Dakota, ninety days; California, Indiana, Idaho, Nebraska, Nevada, New Mexico, Texas and Wyoming, six months; Alabama, Arizona, Arkansas, Colorado, Illinois, Iowa, Kansas, Kentucky, Maine, Mississippi, Minnesota, Michigan, Missouri, Montana, New Hampshire, Ohio, Oregon, Pennsylvania, Utah, Vermont (both parties as husband and wife), West Virginia, Washington and Wisconsin, one year; Florida, Maryland, North Carolina, Rhode Island and Tennessee, two years; Connecticut and Massachusetts (if, when married, both parties were residents, otherwise five years), three years.

REMARRIAGE.—There are no restrictions upon remarriage by divorced persons in Connecticut, Kentucky, Illinois and Minnesota. Defendant must wait two years and obtain permission from the court in Massachusetts. The decree of the court may restrain the guilty party from remarrying in Virginia. Parties cannot remarry until after two years, except by permission of the court, in Maine. In New York the plaintiff may remarry, but the defendant cannot do so during the plaintiff's lifetime, unless the decree be modified or proof that five years have elapsed, and that complainant has married again and defendant's conduct has been uniformly good. Any violation of this is punished as bigamy, even though the other party has been married. In Delaware, Pennsylvania and Tennessee no wife or husband divorced for violation of the marriage vow can marry the *particeps criminis* during the life of the former husband or wife, nor in Louisiana at any time; such marriage in Louisiana renders the person divorced guilty of bigamy.

RIGHTS OF MARRIED WOMEN.

Any and all property which a woman owns at her marriage, together with the rents, issues and profits thereof, and the property that comes to her by descent, devise, bequest, gift or grant, or which she acquires by her trade, business, labor, or services performed on her separate account, shall, notwithstanding her marriage, remain her sole and separate prop-

erty, and may be used, collected and invested by her in her own name, and shall not be subject to the interference or control of her husband, or be liable for his debts, unless for such debts as may have been contracted for the support of herself or children by her as his agent.

A married woman may likewise bargain, sell, assign, transfer and convey such property, and enter into contracts regarding the same on her separate trade, labor or business with the like effect as if she were unmarried. Her husband, however, is not liable for such contracts, and they do not render him or his property in any way liable therefor. She may also sue and be sued in all matters having relation to her sole and separate property in the same manner as if she were sole.

In the following cases a married woman's contract may be enforced against her and her separate estate: 1. When the contract is created in or respecting the carrying on of the trade or business of the wife. 2. When it relates to or is made for the benefit of her sole or separate estate. 3. When the intention to charge the separate estate is expressed in the contract creating the liability.

When a husband receives a principle sum of money belonging to his wife, the law presumes he receives it for her use, and he must account for it, or expend it on her account by her authority or direction, or that she gave it to him as a gift.

If he receives interest or income and spends it with her knowledge and without objection, a gift will be presumed from acquiescence.

Money received by a husband from his wife and expended by him, under her direction, on his land, in improving the home of the family, is a gift, and cannot be recovered by the wife, or reclaimed, or an account demanded.

An appropriation by a wife, herself, of her separate property to the use and benefit of her husband, in the absence of an agreement to repay, or any circumstance from which such an agreement can be inferred, will not create the relation of debtor and creditor, nor render the husband liable to account.

A wife who causelessly deserts her husband is not entitled to the aid of a court of equity in getting possession of such chattels as she has contributed to the furnishing and adornment of her husband's house. Her legal title remains, and she could convey her interest to a third party by sale, and said party would have a good title, unless her husband should prove a gift.

Wife's property is not liable to a lien of a sub-contractor for materials furnished to the husband for the erection of a building thereon, where it is not shown that the wife was notified of the intention to furnish the materials, or a settlement made with the contractor and given to the wife, her agent or trustee.

The common law of the United States has some curious provisions regarding the rights of married women, though in all the States there are statutory provisions essentially modifying this law. As it now stands the husband is responsible for necessaries supplied to the wife even should he not fail to supply them himself, and is held liable if he turn her from his house, or otherwise separate himself from her without good cause. He is not held liable if the wife deserts him, or if he turns her away for good cause. If she leaves him through good cause, then he is liable. If a man lives with a woman as his wife, and so represents her, even though this representation is made to one who knows she is not, he is liable the same way as if she were his wife.

POLITICS AND STATECRAFT.

A politician, Proteus-like, must alter
His face and habit; and like water, seem
Of the same color that the vessel is
That doth contain it, varying his form
With the chameleon, at each object's change.
—MASON.

DEFINITIONS AND DETAILS.

The Abolition party was born in 1829.

Poll tax was known in England, A.D. 1380.

The London Reform Club was established in 1836.

A political lampoon was formerly termed a pasquinade.

A close corporation is that which fills its own vacancies.

The first French National Assembly was convened in 1789.

There are 670 members in the British House of Commons.

"Pairing off" was first practiced in this country in 1839.

Alderman was a Saxon office and simply means elder-man.

The first journals of Congress date from September, 1774.

The English local option law is termed the Permissive Bill.

In Germany the Reichsrath is the council of the whole Empire.

It was Abe Lincoln who termed the freedmen "wards of the nation."

Stephen A. Douglas was the Little Giant of our political history.

The name "Old Hickory" was given to Andrew Jackson in 1813.

The Indian Territory was set apart in 1832; Oklahoma subtracted 1889.

The familiar letters "O. K." were a party cry in the campaign of 1828.

The parliamentary motion of closure is "that the question be now put."

R. B. Hayes said: "He serves his party best who serves the country best."

Sheriff is derived from *shire-reeve*, the chief magistrate of a shire or county.

In 1796 Mr. C. C. Pinskey said "millions for defence but not one cent for tribute."

The straight-out-Democrats were a party that arose in 1872, led by Charles O'Connor.

In Norway persons who have not been vaccinated are not allowed to vote at any election.

In the days of Louis XV France was styled "an absolute monarchy tempered by songs."

It was Tennyson, who pictured for us "the parliament of man, the federation of the world."

Cortes is the name given in Spain and Portugal to the assembly of representatives of the nation.

"Me, too," was a nickname given to Senator T. C. Platt, N. Y., as being the mere echo of Conkling.

McClellan's army nickname was Little Mac. It became national in the presidential struggle of 1864.

French chauvinism and British jingoism have been mildly imitated here as "the brilliant foreign policy."

A phrase much used among peace-lovers after the civil war was: To shake hands across the bloody chasm.

Opportunists is a term in French politics for those who would delay action until a favorable chance arrives.

It was Mr. Cleveland who originated the terms "offensive partisanship" and "innocuous desuetude."

One of Lincoln's pleas for re-election, in 1864, was that "it was not best to swap horses in crossing a stream."

"I would rather be right than be president" was said by Henry Clay, in 1850, to Mr. Preston of Kentucky.

This very happy phrase, "the cohesive power of public plunder," is but a misquotation from one of Calhoun's speeches.

The phrase "all men are born free and equal" is not in the Declaration of Independence but in the Massachusetts constitution.

The phrase "blocks of five" was alleged to have been first used by W. W. Dudley in the Cleveland-Harrison campaign of 1888.

Particularists is a term applied in Germany to those who wish to preserve the distinct independence of the several German states.

Democracy is government of the people by themselves; more broadly the people who desire to exercise sovereignty either directly or indirectly.

Coalition is politically applied to the union of two parties, or, as generally happens, portions of parties, who agree to sink their differences and act in common.

The "Stalwarts" arose out of the Republican Convention of 1880, led by Roscoe Conkling and others who stood firmly (stalwartly) for a third term for Grant.

The oft-quoted Bulwer-Clayton Treaty, concluded between England and America, July 4, 1850, provided that neither should have exclusive control over the proposed Central American Ship Canal which passes through Nicaraguan territory.

Cumulative Vote is the system introduced into England in 1870 by which each person has as many votes as there are candidates, and the voter may give all the votes to one or distribute them as he thinks fit. It is only recognized at school board elections.

A demagogue is a politician who gains influence by flattering the prejudices or working on the ignorance of the people. Originally one who led the people in politics.

The French *Tiers État* or "Le Tiers" was the third order of the state, the other two being the noblesse and the clergy. The three orders combined form the *États Généraux.*

The old original "palladium" was a wooden image of Pallas, said to have fallen from heaven, and to have been religiously guarded in Troy, as a pledge of the safety of the city.

Secret service moneys, in the widest sense of the term, include all funds placed at the disposal of ministers of state, to be expended at their discretion, without giving an account.

Cæsarism is the absolute rule of man over man, with the recognition of no law divine or human beyond that of the ruler's will. Cæsar must be *summus pontifex* as well as *imperator.*

Annexation is the adding or joining to a State of territory which was previously independent or in possession of another power. It is generally, though not always, the result of war.

A committee is a portion generally consisting of not less than three members selected from a more numerous body, to whom some special act to be performed, or investigation to be made, is committed.

Ukase or Oukaz is a term applied in Russia to all the orders or edicts, legislative or administrative, emanating from the czar directly or from the senate. The term is not extended to the order of ministers.

International arbitration is an effort to substitute arbitration for war in international disputes. The *International Arbitration and Peace Association* was founded for this end (October, 1873), at Brussels.

The term ironclad oath was applied to an oath of office prescribed by Congress after the close of the civil war as a safeguard against future disloyalty on the part of citizens of the reconstructed Southern States.

Universal suffrage was adopted in France in 1791, in Germany in 1871, and in Spain in 1890, but in Great Britain, and most European countries, the suffrage is limited by a household or other qualification. Universal suffrage was one of the six points of the charter.

Comity of Nations is the international courtesy by which effect is given to the laws of one state within the territory and against the citizens of another state. The surrender of W M. Tweed, by the Spanish government to our own, when he was trying to escape with his plunder, is an instance of its operation.

Civil Service is a term comprising all officers of the Government who do not belong to the military or naval services and are engaged in the administration of the civil affairs of the State, such as the collection of the revenue, the administration of law and justice, the performance of the executive duties of the goverment, and the representation of the country abroad.

The blue book of the City of New York shows that there are 6,724 persons paid by the city for their services. Of these 2,722, including the mayor, aldermen, heads of city departments and teachers and other employees of the board of education are exempt from civil service rules, and 4,002 are included under the rules, of whom 2,760 are appointed only after competitive examination.

Among strange political terms the "Barnburners" were democrats who withdrew from their party in 1846. They opposed the formation of all corporations because they were afraid the United States Bank would be re-established. The name refers to the story of the man who burnt his barn to get rid of the rats.

The "colonial system" is a theory long acted on by European nations, that their settlements abroad were to be treated as proprietary domains, exploited for the benefit of the mother-country, which did everything it could to import their produce as cheaply as possible, and encourage them to a large consumption of home manufactures.

Entente Cordiale (Fr., "cordial understanding") is a term that originated, according to Littré, in the French chamber of deputies in 1840–41, and which from having been first used especially to denote the friendly relations and disposition existing between France and Great Britain has come to be used in regard to the amicable relations of other countries.

Voting in France is twofold: (1.) Scrutin d'Arrondissement, or the single ballot system, whereby each arrondissement (district of a department) returns its own member for Parliament; (2) Scrutin de Liste, or the multiple ballot system, whereby all the candidates offer themselves for the department, and are put upon the same list, each elector having as many votes as there are seats for the department.

Conservative as a term for one of the two great parties in English politics, was first used in an article in the *Quarterly* for January 1830, and was by Macaulay in the *Edinburgh* for 1832 referred to as a "new cant word." Nevertheless it began to supersede Tory about the time of the Reform Bill controversies. In this country it is applied to the Democracy because of their jealous care for personal and local rights.

Closure, originating in the French *clôture*, is a parliamentary method introduced into the English House of Commons in 1882, by which power is given to the speaker or the chairman of committees, to close a debate when it seems to him that the subject has been discussed, and he is authorized to do so by a motion duly supported. The equivalent of closure obtains in American usage through the "previous question."

The Hartford Convention was an assemblage of delegates from the New England States, at Hartford, Conn., December 15, 1814. It sat twenty days with closed doors, and as it was supposed to be of a treasonable character, it was watched by a military officer of the Government. The convention, at rising, proposed certain amendments to the Constitution; but though no treasonable act was committed, and no treasonable intention proved, the Federalist party never recovered from the odium of its opposition to the Government, and "Hartford Convention Federalists" was long a term of reproach.

Non-intercourse Act was passed by Congress February 27, 1809, suspending all trade between the United States and either France or England. The offence of England was its claim of the right of search, which compelled American vessels to surrender any British subjects who formed part of their crew. The offence of France was the Continental system. Napoleon, having removed all obstructions to American trade, Congress renewed intercourse with France November 2, 1810; but the breaking out of the second American war with Great Britain in May, 1812, continued the non-intercourse till after the battle of Waterloo, when friendly relations were restored.

The term cabal is employed to denote a small, intriguing, factious party, united for political or personal ends. It had been previously used to denote a secret committee or cabinet, when, during 1667–73, it was especially applied to Charles II's infamous ministry, consisting of five members, whose initials, by a strange coincidence, made up the word CABAL,—viz., Clifford, Ashley (Shaftesbury), Buckingham, Arlington and Lauderdale.

A caucus is a private meeting of politicians to agree upon candidates for an ensuing election, or to fix the business to be laid before a general meeting of their party. The term originated in the United States, where the caucus has become a fixed fact, the "ticket" for federal, state, and municipal offices, being always decided upon by the party leaders. Of late years the system has been introduced into England, but is chiefly used by the Radicals.

The Know-nothings, or "Natives" (1853), were a political society in the United States of America who declared that the right of citizenship should be restricted to "natives," or those born of American parents in America. They were opposed to Catholicism, as inconsistent with the spirit of republicanism. When asked any question respecting their society, their only reply was, "I know nothing." They split on the slave question and died out as a distinct party.

The casting vote is the vote by which the chairman or president of a meeting is generally empowered to *cast* the balance on the one side or the other, where the other votes are equally divided. As the position is a delicate one, it is usual for the presiding officer to vote in such a way as to give the body an opportunity to reconsider its decision. Where the merits of the matter cannot be avoided, the casting vote may be according to the conscience of him who casts it.

There were six Secretaries of State who afterward became Presidents, namely, Jefferson, Madison, Monroe, John Quincy Adams, Van Buren, and Buchanan. Monroe was Secretary of War for a short time after he had served in the State Department, and General Grant was Secretary of War ad interim. There have been no Secretaries of the Treasury, the Navy, or the Interior, nor any Postmasters or Attorney Generals who have become President. Jeff Davis was Secretary of War under President Pierce.

Not for mere pastime are the so-called Blue-books, the name popularly applied to the reports and other papers printed by the English parliament, because they are usually stitched up in blue paper wrappers. Some departments, however, issue their proceedings in drab, and some in white covers. The official books of other governments corresponding to these blue-books are designated by the color of their covers. The principal are: France, yellow; Germany and Portugal, white; Italy, green; and Spain, red.

The Reichstag is the diet of the German empire. Since the establishment of the empire under the king of Prussia the legislative council has consisted of one representative to every one hundred thousand inhabitants. As the entire population is about forty-seven millions, this will give four hundred and seventy members to the legislative assembly. The delegates of the confederated governments form the "Bundesrath," and whatever passes the two houses and is signed by the king-emperor becomes binding on all the twenty-six states.

The cabinet is a council formed of the chief ministers of state, who formulate and carry out a policy. The cabinet was known in England as early as 1690. In the United States the members of the cabinet are the heads of departments, who act in an advisory relation to the President. They are the Secretary of State, the Secretary of the Treasury, the Secretary of War, the Secretary of the Navy, the Secretary of the Interior, the Secretary of Agriculture, the Attorney General, and the Postmaster General. The salary of a cabinet officer is $8,000.

The two legislative houses of Norway combined are called the Storthing or Storting. It is elected once in three years, and for business purposes divides itself into two chambers—the Lagthing and the Odelsthing (the legislative house and the "house of commons"). All bills originate in the Odelsthing, and are sent up to the Lagthing for approval or disapproval. If assented to they are submitted to the king. If the king dissents, they are returned to the Storthing (or combined house), and whatever passes the Storthing thrice becomes law, whether the king approves it or not.

A tariff is a table of duties charged on the imports or exports of a country. The word is said to be derived from the Moorish port of Tarifa, where duties were levied on African commerce. In Great Britain the tariff imposes no export duties, and applies only to import duties levied for purposes of revenue. In the United States, also, the term is applied exclusively to import duties, which are fixed by Congress, and levied for purposes of protection. The *McKinley* tariff, placing a high duty upon all foreign imported goods, with the view of protecting native manufactures of the United States, came into operation October, 1890. Protective tariffs are in operation in most of the continental countries Canada, and Australia.

The Cincinnati Association is a society or order founded in the United States (1783) by the officers of the War of Independence, "to perpetuate their friendship, and to raise a fund for relieving the widows and orphans of those fallen during the war." It derived its name from the appellation given to those who, with Washington at their head, had left their rural occupations (like Lucius Quintus, Cincinnatus, 458 B.C.), to fight for their country. The *badge* of the society is a bald eagle, having on its breast a figure of the Roman Dictator receiving the military ensigns from the senators. It is suspended by a dark blue ribbon, emblematic of the union of France and America. *Motto: Omnia relinquit servare rempublicam.* In several states the order still exists, and holds triennial meetings of its delegates.

The term "Whig" in United States history denotes those who in the colonial and revolutionary periods were opposed to the British rule; and also it is the name adopted in 1834 by the survivors of the old National Republican party, after its overwhelming defeat by Jackson in 1832. Jackson's bold action in dismissing members of his cabinet, and his relentless war upon the United States Bank, made him in their eyes a tyrant little less hateful than George III, and the old name of Whig was chosen as expressive of their revolt against one-man power. Webster, Clay, and other National Republicans and old Federalists readily accepted the name, under which they were defeated in 1836, and in 1840 won their first great victory in the return of President Harrison. The party died in 1852, slain by the hands of its own dissatisfied members.

The Ku-Klux Klan (1868-1871) was a secret society of ex-Confederate soldiers. "Ku-Klux" is meant to represent the click in cocking a rifle. The "Klan" was an offset of the "Loyal League," and its ostensible object was to "repress crime and preserve law in the disturbed Southern States." In 1871 Congress, resolved to put down the association, suspended the *Habeas Corpus Act* (under what is generally called "The Ku-Klux Law") in nine counties of South Carolina. This law and the employment of the military brought the "Klan" to an end.

The legislative assembly of France is divided into Right and Left. The Right includes the Legitimists, the Orleanists, and the Imperialists. The Left includes the Republicans and the Radicals. The Legitimists are those who favored the fortunes of the older branch of the Bourbon family, represented till 1883 by the Comte de Chambord, who was called by them "Henri V." The Orleanists favored the Louis Philippe branch of the Bourbon family. On the death of the Comte de Chambord, in 1883, the Legitimists and the Orleanists became united. The Imperialists favor the family of Napoleon. The Legitimists used to constitute the "Extreme Right," the Orleanists the "Right Center." The Radicals sit in the "Extreme Left," and the Republicans in the "Left Center."

WHAT IS TAMMANY?

Tammany, Tamendy, or Tammenund was an Indian chief of the Delaware nation who lived about the middle of the seventeenth century. He was a great friend of the whites, and was famous in tradition for so many other virtues that in the latter days of the Revolution he was facetiously adopted as the patron saint of the new republic. A society called the Tammany Society was founded in New York city, May 12, 1789, originally for benevolent purposes, but it ultimately developed into a mere political engine, becoming the principal instrument of the managers of the Democratic party in New York City. The number of the general committee arose to over 1,400, delegates ultimately being sent from each district and precinct; and finally a central "committee on organization" was chosen from this unwieldy body, whose chairman was "boss" of the hall. The most notorious of these "bosses" was William M. Tweed, whose gigantic frauds, and those of the "ring" of which he was the chief, were finally exposed in 1871; Tweed was convicted, and died in gaol while suits were pending against him for the recovery by the city of $6,000,000. This catastrophe sadly crippled the power of Tammany, but its influence in politics was by no means killed even then, and it has since, with its leaning towards a protective tariff, proved a constant source of insecurity and danger to the Democratic party at large. Its influence was thrown into the scale against Hancock, successfully, in 1880, and against Cleveland, unsuccessfully, in 1884; and the organization is still strong enough to carry its candidate for the mayoralty, even against a combination of opposing forces.

WHEN ARE YOU TWENTY-ONE?

The question sometimes arises whether a man is entitled to vote at an election held on the day preceding the twenty-first anniversary of his birth. Blackstone, in his "Commentaries," book 1, page 463, says: "Full age in male or female is 21 years, which age is completed on the day preceding the anniversary of a person's birth, who, till that time, is

an infant, and so styled in law." The late Chief Justice Sharswood, in his edition of Blackstone's "Commentaries," quotes Christian's note on the above as follows: "If he is born on the 16th day of February, 1608, he is of age to do any legal act on the morning of the 15th of February, 1629, though he may not have lived twenty-one years by nearly 48 hours. The reason assigned is that in law there is no fraction of a day; and if the birth were on the last second of one day and the act on the first second of the preceding day twenty-one years after, then twenty-one years would be complete; and in the law it is the same whether a thing is done upon one moment of the day or another." The same high authority (Sharswood) adds in a note of his own: "A person is of full age the day before the twenty-first anniversary of his birthday."

ABOUT STATE ELECTION.

State elections are held in the various States as follows: Alabama and Kentucky, first Monday in August; Arkansas, first Monday in September; Georgia, first Wednesday in October; Louisiana, the Tuesday after the third Monday in April; Maine, second Monday in September; Oregon, first Monday in June; Rhode Island, first Wednesday in April; Vermont, first Tuesday in September. All others occur on the Tuesday after the first Monday in November. Presidential elections are held on the Tuesday after the first Monday in November.

THE AUSTRALIAN BALLOT SYSTEM.

In the New England colonies the practice of secret voting was in vogue from the very first, and it has now been adopted throughout the United States. It is prevalent also in the self-governing English colonies in Canada and Australia, and in most, if not all, the countries of Europe which have adopted parliamentary institutions—in France, Germany, Italy, etc. While it may with substantial justice be maintained that open voting is theoretically the best at elections of every kind, on the ground that the suffrage being a public trust, it should be openly and manfully exercised with the full sense of responsibility, secret voting is now generally regarded as practically the most satisfactory method. Though it is not a perfect safeguard against bribery and intimidation, it has proved to be very effective. Since its adoption elections have proceeded with greater quietness, order and with comparatively little corruption.

The peculiar system of the secret ballot known as the Australian system took its name from its being practiced first in New South Wales, a prominent Australian colony. Its distinguishing feature is that the names of all candidates are printed on one ticket, and that the voter must cross out the names of all those he does not wish to vote for.

Many of our States have adopted this system of voting, with slight modifications, varying with the different States. Most of them, however, have adopted what is styled the single or "blanket" ballot. All the names in nomination are printed on one sheet, the voter's choice to be indicated by marking. There are two methods used of grouping the names of the candidates. The Australian plan arranges the titles of the offices alphabetically, the names of the candidates and usually their party connection being attached.

The other form groups all names and offices by parties. It is illustrated by the following diagram of a ballot:

Democratic.	Republican.	Prohibition.	People's.
○	○	○	○
For Governor.	*For Governor.*	*For Governor.*	*For Governor.*
□ John B. Altgeld.	□ Joseph W. Fifer.	□ R. R. Sink.	□ N. M. Barnett.

The voter of a straight ticket marks a cross in the circle at the head of his ticket. The voter who scatters marks the squares opposite the the names of all the candidates on the tickets.

THE PRESIDENTIAL ELECTION.

The President and Vice-President of the United States are chosen by officials termed "Electors" in each State, who are, under existing State laws, chosen by the qualified voters thereof by ballot, on the first Tuesday after the first Monday in November in every fourth year preceding the year in which the Presidential term expires.

The Constitution of the United States prescribes that each State shall "appoint" in such manner as the Legislature thereof may direct, a number of electors equal to the whole number of Senators and Representatives to which the State may be entitled in Congress; but no Senator or Representative or person holding an office of trust or profit under the United States shall be an elector. The Constitution requires that the day when electors are chosen shall be the same throughout the United States. At the beginning of our Government most of the electors were chosen by the Legislatures of their respective States, the people having no direct participation in their choice; and one State, South Carolina, continued that practice down to the breaking out of the Civil War. But in all the States now the Presidential electors are, under the direction of State laws, chosen by the people.

The manner in which the chosen electors meet and ballot for a President and Vice-President of the United States, is provided for in Article XII of the Constitution. The same article prescribes the mode in which the Congress shall count the ballots of the electors, and announce the result.

The procedure of the two houses, in case the returns of the election of electors from any State are disputed, is provided in the "Electoral Count" act, passed by the Forty-ninth Congress.

The Constitution defines who is eligible for President of the United States, as follows:

No person except a natural-born citizen, or a citizen of the United States at the time of the adoption of this Constitution shall be eligible to the office of President; neither shall any person be eligible to that office who shall not have attained to the age of 35 years.

The qualifications for Vice-President are the same.

The "Electoral Count" act directs that the Presidential electors shall meet and give their votes on the second Monday in January next following their election. It fixes the time when Congress shall be in session to count the ballots as the second Wednesday in February succeeding the meeting of the electors.

The Presidential succession is fixed by chapter 4 of the acts of the Forty-ninth Congress, first session. In case of the removal, death, resignaion or inability of both the President or Vice-President, then the Secretary of State shall act as President until the disability of the President or Vice-President is removed or a President is elected. If there be no Secretary of State, then the Secretary of the Treasury will act; and

the remainder of succession is: The Secretary of War, Attorney-General, Postmaster-General, Secretary of the Navy, and Secretary of the Interior. The acting President must, upon taking office, convene Congress, if not at the time in session, in extraordinary session, giving twenty days' notice.

HOW TO BECOME A CITIZEN.

The right to vote comes from the State, and is a State gift. Naturalization is a Federal right, and is a gift of the Union, not of any one State. In nearly one half the Union aliens who have declared intentions vote and have the right to vote equally with naturalized or native-born citizens. In the other half only actual citizens may vote. The Federal naturalization laws apply to the whole Union alike, and provide that no alien male may be naturalized until after five years' residence. Even after five years' residence and due naturalization he is not entitled to vote unless the laws of the State confer the privilege upon him, and he may vote in one State (Minnesota) four months after landing, if he has immediately declared his intention, under United States law, to become a citizen.

The conditions under and the manner in which an alien may be admitted to become a citizen of the United States are prescribed by Sections 2165-74 of the Revised Statutes of the United States.

DECLARATION OF INTENTION.—The alien must declare upon oath before a Circuit or District Court of the United States, or a District or Supreme Court of the Territories, or a court of record of any of the States having common law jurisdiction, and a seal and clerk, two years at least prior to his admission, that it is, *bona fide*, his intention to become a citizen of the United States, and to renounce forever all allegiance and fidelity to any foreign prince or State, and particularly to the one of which he may be at the time a citizen or subject.

OATH ON APPLICATION FOR ADMISSON.—He must, at the time of his application to be admitted, declare on oath, before some one of the courts above specified, "that he will support the Constitution of the United States, and that he absolutely and entirely renounces and abjures all allegiance and fidelity to every foreign prince, potentate, State or sovereignty, and particularly, by name, to the prince, potentate, State or sovereignty of which he was before a citizen or subject," which proceedings must be recorded by the clerk of the court.

CONDITIONS FOR CITIZENSHIP.—If it shall appear to the satisfaction of the court to which the alien has applied that he has resided continuously within the United States for at least five years, and within the State or Territory where such court is at the time held one year at least; and that during that time "he has behaved as a man of good moral character, attached to the principles of the Constitution of the United States, and well disposed to the good order and happiness of the same," he will be admitted to citizenship.

TITLES OF NOBILITY.—If the applicant has borne any hereditary title or order of nobility, he must make an express renunciation of the same at the time of his application.

SOLDIERS.—Any alien of the age of twenty-one years and upwards, who has been in the armies of the United States and has been honorably discharged therefrom, may become a citizen on his petition, without any previous declaration of intention, provided that he has resided in the United States at least one year previous to his application, and is of good moral character.

MINORS.—Any alien under the age of twenty-one years who has resided in the United States three years next preceding his arriving at that age, and who has continued to reside therein to the time he may make application to be admitted a citizen thereof, may, after he arrives at the age of twenty-one years, and after he has resided five years within the United States, including the three years of his minority, be admitted a citizen: but he must make a declaration on oath and prove to the satisfaction of the court that for two years next preceding it has been his *bona fide* intention to become a citizen.

CHILDREN OF NATURALIZED CITIZENS.—The children of persons who have been duly naturalized, being under the age of sixteen years at the time of the naturalization of their parents, shall, if dwelling in the United States, be considered as citizens thereof.

CITIZENS' CHILDREN WHO ARE BORN ABROAD.—The children of persons who now are or have been citizens of the United States are, though born out of the limits and jurisdiction of the United States, considered as citizens thereof.

PROTECTION ABROAD TO NATURALIZED CITIZENS. — Section 2000 of the Revised Statutes of the United States declares that "all naturalized citizens of the United States, while in foreign countries are entitled to and shall receive from this Government the same protection of persons and property which is accorded to native-born citizens."

PARLIAMENTARY LAW CONDENSED.

The following will be found useful as a guide to parliamentarians:

LISTS OF MOTIONS ARRANGED ACCORDING TO THEIR PURPOSE AND EFFECT.

[*Letters refer to rules below.*]

Modifying or amending.				
8. To amend or to substitute, or to divide the question				K
To refer to committee.				
7. To commit (or recommit)				D
Deferring action.				
6. To postpone to a fixed time				C
4. To lay on the table	A	E		G
Suppressing or extending debate.				
5. For the previous question	A	E		M
To limit, or close, debate		A		M
To extend limits of debate				A
Suppressing the question.				
Objection to consideration of question	A	H	M	N
9. To postpone indefinitely			D	E
4. To lay upon the table	A	E		G
To bring up a question the second time.				
To reconsider { debatable question	D	E	F	I
To reconsider { undebatable question	A	E	F	I
Concerning Orders. Rules, etc.				
3. For the orders of the day	A	E	H	N
To make subject a special order				M
To amend the rules				M
To suspend the rules	A	E	F	M
To make up a question out of its proper order			A	E
To take from the table		A	E	G
Questions touching priority of business				A
Questions of privilege.				
Asking leave to continue speaking after indecorum				A
Appeal from chair's decision touching indecorum	A	E	H	L
Appeal from chair's decision generally		E	H	L
Question upon reading of papers			A	E
Withdrawal of a motion			A	E
Closing a meeting.				
2. To adjourn (in committees, to rise), or to take a recess, without limitation		A	E	F
1. To fix the time to which to adjourn				B

ORDER OF PRECEDENCE.—The motions above numbered 1 to 9 take precedence over all others in the order given, and any one of them, except to amend or substitute, is in order while a motion of a lower rank is pending.

RULE A. Undebatable, but remarks may be tacitly allowed.

RULE B. Undebatable if another question is before the assembly.

RULE C. Limited debate allowed on propriety of postponement only.

RULE D. Opens the main question to debate. Motions not so marked do not allow of reference to main question.

RULE E. Cannot be amended. Motion to adjourn can be amended when there is no other business before the house.

RULE F. Cannot be reconsidered.

RULE G. An affirmative vote cannot be reconsidered.

RULE H. In order when another has the floor.

RULE I. A motion to reconsider may be moved and entered when another has the floor, but the business then before the house may not be set aside. This motion can only be entertained when made by one who voted originally with the prevailing side.

When called up it takes precedence of all others which may come up, excepting only motions relating to adjournment

Rule K. A motion to amend an amendment cannot be amended.

RULE L. When an appeal from the chair's decision results in a tie vote, the chair is sustained.

RULE M. Requires a two-thirds vote unless special rules have been enacted,

RULE N. Does not require to be seconded.

GENERAL RULES.

No motion is open for discussion until it has been stated by the chair.

The maker of a motion cannot modify it or withdraw it after it has been stated by the chair, except by general consent.

Only one reconsideration of a question is permitted.

A motion to adjourn, to lay on the table, or to take from the table, cannot be renewed unless some other motion has been made in the interval.

On motion to strike out the words, "Shall the words stand part of the motion?" unless a majority sustain the words, they are struck out.

On motion for previous question, the form to be observed is, "Shall the main question be now put?" This, if carried, ends debate.

On an appeal from the chair's decision, "Shall the decision be sustained as the ruling of the house?" the chair is generally sustained.

On motion for orders of the day, "Will the house now proceed to the orders of the day?" This, if carried, supersedes intervening motions.

When an objection is raised to considering questions, "Shall the question be considered?" objections may be made by any member before debate has commenced, but not subsequently.

WOMAN SUFFRAGE.

The following is a statement of the Woman Suffrage movement, corrected to January 1, 1893. Thirty-two States and Territories – a majority of the Union—have given women some form of suffrage.

WYOMING.—Women have voted on the same terms with men since 1870. The convention in 1889, to form a State Constitution, unanimously inserted a provision securing them suffrage. This Constitution was ratified by the voters at a special election by about three-fourths majority. Congress admitted the State July 10, 1890.

WASHINGTON.—Women voted in the Territory for five years, till excluded by a decision of the Territorial Supreme Court, which court was not elected by the people nor responsible to them. In adopting a State Constitution, the question of allowing women to vote was submitted separately to vote of the men. It was not carried. Many women claim that they were illegally excluded, and are seeking to regain suffrage.

KANSAS.—Women have suffrage in all municipal elections. About 60,000 voted last year.

UTAH.—Women voted in this Territory until excluded by the Edmunds law. They have organized in large numbers to demand the repeal of this law. The State Constitution of 1884 gave suffrage to women.

School suffrage exists, on various terms, in Arizona, Colorado, Delaware, Idaho, Illinois, Indiana, Kansas, Kentucky, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Vermont, Washington and Wisconsin. Women can vote for trustees of the State University in Illinois, and for county superintendents in Minnesota.

MONTANA.—The State Constitution guarantees women the power to vote on local taxation.

NEW YORK.—Women can vote at waterworks elections, and on questions of local improvements; also for Assembly District School Commissioners in the rural districts once in three years.

PENNSYLVANIA.—Women vote on local improvements, by signing or refusing to sign petitions.

NEW JERSEY.—Women can vote at elections for sewers and other improvements.

SOUTHERN STATES.—Delaware has municipal woman suffrage in Wilmington and many other places. Louisiana admits women to vote on the question of running railroads through parishes. Tennessee on incorporation of cities and annexation thereto. Mississippi on fence questions under the stock law. Arkansas and Missouri by signing or refusing petitions on liquor license. Kentucky, widows whose children attend school vote. Texas women in many counties vote by signing or refusing to sign petitions for school officers.

PARTIES THAT ELECTED PRESIDENTS.

ALL PARTIES, 2—Washington, Monroe.

FEDERAL, 2—John Adams, John Q. Adams.

OLD REPUBLICANS, 2—Jefferson, Madison.

DEMOCRATS, 6—Jackson, Van Buren, Polk, Pierce, Buchanan, Cleveland.

WHIGS, 4—Harrison, Tyler, Taylor, Fillmore.

NEW REPUBLICANS, 7—Lincoln, Johnson, Grant, Hayes, Garfield, Arthur, Harrison.

THE FUGITIVE SLAVE LAW.

The constitution of the United States of America having recognized slavery, or "service," as it was termed, provided that persons held to service or labor in one State, under the laws thereof, and escaping into anotner, should be delivered up, on claim of the party to whom such service or labor might be due. An act passed by congress in 1793, providing for the reclamation of fugitives, was superseded by a more stringent act in 1850, containing many obnoxious provisions; a larger fee, for instance, was paid to the judicial officer when the person arrested was adjudged to be a slave than when he was declared free; and all citizens were required, when called upon, to render the officers personal assistance in the performance of their duties. Any assistance rendered to a fugitive, or obstruction offered to his arrest was penal, and many persons were remanded under the act; but the increased hostility to slavery which it engendered actually led to assistance being given in a larger number of escapes than ever before, mainly through the organization known as the "underground railroad." The act was repealed after the outbreak of the civil war; and, since slavery has been abolished, the constitutional provision has lost all importance.

CONGRESS AND ITS DUTIES.

The American Congress is divided into the Senate and the House of Representatives, a division which was made because our Government was founded upon the model of England, whose Parliament consists of a House of Peers and a House of Commons. The Senate is supposed to play the same part in American legislation which the House of Peers does in Britain. It is a sort of governor in the machinery of the body politic which exerts a conservative and prudent influence on law-making. The Senate originally, although that meaning has been largely neglected, meant the conclave of the sovereign States of the Union, a council which was to look more closely after the general and external

affairs of the confederacy, while the House of Representatives was to represent the people of the whole Union. This meaning, it has been said above, has been largely lost in the course of time, but the fiction remains, and the division of the powers of Government between the two bodies illustrates the purpose which the fathers of the Government had in the original separation into two Houses.

THE SENATE.—The Senate consists of two Senators from each State of the Federal Union. These Senators are chosen by the Legislatures of the respective States and hold office for six years. There was a strong effort made at the time of the drafting of the Constitution to extend the term for life, but this was believed to savor too much of aristocracy, and after long debate six years was agreed upon as a compromise measure. The pay of Senators is $5,000 per year. The Senate is presided over by the Vice-President, and when he has for any cause vacated his office a President *pro tempore* of the Senate is elected. There are now (1893) eighty-six Senators. All impeachments are tried by the Senate, and when the President of the United States is on trial the Chief Justice of the Supreme Court must preside. The Senate must approve of treaties made with foreign governments by the President before they can become binding, and the consent of the Senate is necessary to the appointments to all the great offices of the State made by the President. The Senate is the only permanent body in the United States Government, the elections being always so ordered that two-thirds of the Senators hold over.

THE HOUSE.—In the early days of the Federal Union the only legislative body was the Continental Congress, which exercised both the executive and legislative functions of government, and which occasionally performed judicial duties also. The old Congress piloted the nation through the Revolutionary war, but, although effective for its original purpose, it was not able for the work which fell upon its shoulders under the articles of confederation. The articles themselves were unsuited to the land, and in a little while it became evident that the United States experiment would end in disaster and disappointment unless something was done to give it shape and direction.

The man that had led the Continental Army to glory and freedom through the Revolution again came forward and preserved by his wise statesmanship the Republic which his military genius had founded. At the call of George Washington the American Constitution was born, and the keystone of the Constitution is the House of Representatives. This body is the brain of the nation; on its floor all the momentous issues of the Republic have been settled; no higher office can a citizen win than a seat in the council of the Nation, none greater in the influence which it wields, not for America alone, but for the future of the human race.

The number of Representatives is decided by the census; which is taken every ten years. As soon as this is done Congress decides upon the number of Representatives for the ensuing decade. The number since the establishment of the Constitution has been as follows:

1789—1793	65	1843—1853	223
1793—1803	105	1853—1863	237
1803—1813	149	1863—1873	243
1813—1823	189	1873—1883	293
1823—1833	213	1883—1893	325
1833—1843	240		

These Congressmen are paid $5,000 a year, with certain additions in the shape of mileage, stationery, etc., etc. The qualifications of a Representative are fully explained in the Constitution,

MUSIC AND THE FINE ARTS.

The beings of the mind are not of clay,
Essentially immortal, they create
And multiply in us a brighter ray,
And more belov'd existence.
—BYRON.

STRAY HINTS ON ART AND ARTISTS.

Byron had no ear for music.

Pope preferred a street organ to Handel's *Messiah*.

The piano was unknown before the eighteenth century.

"Art lies in concealing art," is a phrase credited to Ovid.

"It was in Greece that sculpture first became an ideal art."

Rococo now applies to whatever is fantastic in decorative art.

It was Schelling who described architecture as "frozen music."

Emanuel Bach is said to have been the first writer for the pianoforte.

The name "Painter of Nature" was given to the French poet Bellean.

The harp is mentioned in Genesis (iv. 21), and is still in use and favor.

Sir W. Scott was wholly ignorant of pictures and quite indifferent to music.

In melodrama, strictly defined, music is always introduced into the dialogue.

Of late the term "fine arts" has become limited to painting and sculpture.

The art of cameo cutting reached its highest perfection in Greece and Rome.

The English artist Hogarth said that "genius is nothing but labor and diligence."

Giovanni Cimabue of Florence (1240–1300) is called the Father of Modern Painters.

Goethe has said that "the first and last thing required of genius is the love of truth."

Stradivarius, who did so much to perfect the violin, lived in the seventeenth century.

Frescoes are of very great antiquity and have been found in Egypt, at Pompeii and elsewhere.

When beauty and grace are combined with utility and strength, architecture becomes a fine art.

Opus is a title given to each separate production of a composer. They are numbered in succession.

"Music hath charms to soothe the savage breast," not "beast"—is the true quotation from Congreve.

Centuries before our Longfellow, Chaucer had written: "the lyfe so short, the crafte so long to lerne."

It was Raphael who did most "to define the true limits and the true capabilities of purely decorative art."

The patron saint of "artists and smiths" is St. Eloi (588-659), master of the mint in the reign of Clotaire II.

The finest specimens of Peruvian masonry extant are to be found in the ruins of Cuzco, an old capital of the state.

The place where the chorus stood in the Greek theatre has given us a word that now refers to the musicians—*orchestra.*

The nimbus or halo painted around the heads of holy personages, is claimed to have been derived from later Greek art.

Renaissance is the name specifically given to the revival of the classic style of art in the fifteenth and sixteenth centuries.

As a portrait painter Van Dyck is second only to Titian. His "Children of Charles I," in the Dresden gallery, is well known.

The general term "gem sculpture" refers to designs worked upon precious stones, as cameos, or cut into the surface as intaglios.

Michelangelo was a giant in sculpture, painting and architecture. All his work is marked by "a mysterious and awful grandeur."

Egypt reached the zenith of her political greatness and her architecture its highest development between 1600 B.C. and 1300 B.C.

Greek paintings were executed in distemper with glue, milk, or white of eggs, and on wood, clay, plaster, stone, parchment and canvas.

For richness of coloring, beauty of form, the portrayal of the sensuous and the painting of the human face, few have surpassed Titian.

Flamboyant was a style of Gothic architecture (1500-1600) in which the tracery of windows, panels, etc., had a wave or flame-like form.

The "Statuesque" school of French artists was that founded by David (1748-1825), who was himself called the Painter of the Revolution.

The cathedral of St. Mark's at Venice, with its many rich mosaics, is considered by some one of the most remarkable buildings in the world.

The Laocoön, a masterpiece of the Rhodian school [323-146 B.C.], "is said to express physical pain and passion better than other existing groups."

The Temple of Karnac, an imposing ruin, is a striking example of the grandeur, the grace and the magnitude of many of the Egyptian temples.

Corot, Millet and Bougereau are among the best of the modern French school, which to-day is enjoying a position it never before attained.

The grand decorations of the Sistine Chapel ceiling were the work of five years, and form a characteristic masterpiece of Michel Angelo.

In the twenty-first verse of the fourth chapter of Genesis we read that Jubal was "the father of all such as handle the harp and organ."

The clavichord is an obsolete musical instrument of the same type as the harpsichord and spinet. A claviharp is a harp struck with keys like a piano.

There are five orders of architecture: the Tuscan, Doric, Ionic, Corinthian and Composite, of which the Tuscan and Composite are Roman and the other three Greek.

Though in its earliest days Christianity in its asceticism was hostile to art, still we find many of the highest forms of mediæval art and architecture in the Church.

The finest ancient marble was that from Paros, called Parian; the next best were from Mount Pentelicus and Hymettus, near Athens. The finest modern marble is from Carrara.

Bach, Handel, Haydn, Mozart, Beethoven, Weber, Chopin, Meyerbeer and Mendelssohn, who are still without peers in the music of Germany, all lived and died within a century.

The oldest existing statue is one of wood, admirably modeled, colored, and with eyes of crystal. It is of a man named Ra-em-ke, an Egyptian, and dating from about B. C. 4000.

The early representations of Christ in painting were purposely devoid of all attraction; in the eighth century Adrian I. decreed that Christ should be represented as beautiful as possible.

The mosaics in the Church of St. Mark, in Venice, are the finest in the world. They cover 40,000 square feet of the upper walls, ceilings, and cupolas, and are all laid on a gold ground.

In these great works of the Italian painters it must be borne in mind that the masters furnished the cartoons, while the details were painted by pupils, many of whom in turn became masters.

Rembrandt van Ryn raised the Dutch school to its highest development in realistic art. Perfect command of light and shade, picturesque effect and truth to nature marks all the work of Rembrandt.

"The Girl I Left Behind Me" has been played and sung in England since 1760. Its original name was "Brighton Camp." It is an Irish air, but who composed either the words or the music is now unknown.

The Caryatides were figures of Greek women used in architecture to support entablatures. They were first used by Praxiteles to perpetuate the disgrace of Carya, who sided with the Persians in the battle of Thermopylæ.

The opposite art term to relief is intaglio, and means the representation of a subject by hollowing it out in a gem or other substance, so that an impression taken from the engraving presents the appearance of a bas-relief.

The candelabrum is properly a candlestick, but is regularly used also for a lamp-stand. Often from three to ten feet high, it may be of great variety of form and may be made of marble, bronze, and the precious metals. The bronze candelabra of the Renaissance are also notable art objects.

Byzantine architecture was the style which was developed by the Byzantine artists from Christian symbolism. Its main features were the circle, dome, and round arch, and its chief symbols, the lily, cross, vesica and nimbus.

In the Vatican at Rome there is a marble statue with natural eyelashes, the only one with this peculiarity in the world. It represents Ariadne sleeping on the Island of Naxos at the moment when she was deserted by Theseus.

The camera obscura (lit. "a dark chamber"), early described by Giambattista della Porta in his "Magia Naturalis," received a new interest in the hands of Daguerre, when it became the principal instrument used in photography.

The concertina is a musical instrument invented in 1829 by Wheatstone, the electrician, the sounds of which are produced by free vibrating reeds of metal, as in the accordion. The scale of the concertina is very complete and extensive.

In St. John's College, Oxford, is preserved a portrait of Charles I, in which the engraver's lines, as they seem to be, are really microscopic writing, the face alone containing all the book of Psalms, with the creeds and several forms of prayers.

Though Hogarth, the father of the English school of painting, was successful as a portrait painter, it was those famous series of satires on the follies of people in general and of Londoners in particular that placed him among the "immortals."

The Greeks employed music, no doubt simple in form, in their dramas. The chorus sang, or rather "intoned poetry," between scenes, and was a very important adjunct of the play, as it was often the only means of showing the *action* of the plot.

Alto, in music, is properly the same as counter tenor, the male voice of the highest pitch (now principally falsetto), and *not* the lowest female voice, which is properly contralto, though in printed music the second part in a quartet is always entitled *alto*.

People love pictures. That is apparent to every thoughtful man who visits an art gallery. It may be true that comparatively few understand all that the artists have said, but it is equally true that, in general, the people derive delight from the works of art.

Dillettante in its original sense is synonymous with an amateur, or lover of the fine arts. It is often used as a term of reproach, to signify an amateur whose taste lies in the direction of what is trivial and vulgar, or of a critic or connoisseur whose knowledge is mere affectation and pretence.

The Cyclopean walls was a name given to masonry built of large irregular stones, closely fitting, but unhewn and uncemented. They were attributed to Strabo's Cyclopes, who were probably mythical, and many of them still exist in Greece (as at Mycenæ and Tiryus), Italy and elsewhere.

Artists say that the next great school will appear in America and rule the artistic world with a more imperial power than the French school exercises today. When one reflects that the art of a nation is but the expression of the inner feeling of its people he is constrained to accept the prophecy as true.

Madonna, an Italian word meaning "My Lady," is used as the generic title for works of art, generally paintings, representing the Virgin, or the Virgin with the Infant Christ. Legend credits St. Luke with having painted the first Madonna, a portrait put on the canvas from life, and with having carved the image of the Virgin in the Santa Casa at Loreto.

Serenade (Ital. *serenata*) was originally music performed in a calm night; hence an entertainment of music given by a lover to his mistress under her window—especially in Spain and Italy. A piece of music characterized by the soft repose which is supposed to be in harmony with the stillness of night is sometimes called a serenade, more usually a nocturne.

Tableaux vivants, or living pictures, are representations of works of painting and sculpture, or of scenes from history or fiction, by living persons. They are said to have been invented by Madame de Genlis, when she had charge of the education of the children of the Duke of Orleans. They were long common in theatres, as they are now in private circles.

In the fine arts a cartoon is a design on strong paper of the full size of a work to be afterwards executed in fresco, oil color, or tapestry; and prepared in order that the artist may adjust the drawing and composition of his subject where alterations can be readily effected. The design when completed is transferred, by tracing or pouncing, to the surface finally to be worked on.

We apply the term Moorish, or Moresque, to the special form of Saracenic architecture developed by the Moors in Spain. Its characteristics were the horseshoe arch, the slender column, minarets, mosques, lattice-work, and gorgeous coloring. The principle examples are the mosque of Cordova (eighth century), and the palace of the Alhambra at Granada (fourteenth century).

Castanets is the name of a musical instrument of percussion in the form of two hollow shells of ivory or hard wood, which are bound together by a band fastened on the thumb, and struck by the fingers to produce a trilling sound in keeping with the rhythm of the music. The castanets were introduced into Spain by the Moors, and are much used as an accompaniment to dances and guitars.

The term bird's-eye view is applied generally to modes of perspective in which the eye is supposed to look down upon the objects from a considerable height. In sketching or drawing a locality for military or economical purposes, this kind of perspective is always used. The great difficulty is to represent at the same time the relative heights of mountains and steepness of acclivities. But the more usual kind of bird's-eye view differs from the common perspective picture only in the greater height of the horizontal line.

Soprano (Ital.) is the highest species of voice. Its average range extends from C below the treble stave to A above it; but the greatest variety in compass and quality is found. The highest compass on record is that of Agujari, which on the testimony of Mozart reached to C in *altissimo* (three octaves). Music for this voice is now written with the G or treble clef; but in German full scores the old soprano clef, C on the first line, is still used. The *mezzo-soprano* has a somewhat lower range, usually from A beneath the treble stave to F on the fifth line.

Foreshortening is a term in painting or drawing, applied to signify that a figure, or a portion of a figure, which is intended to be viewed by the spectator directly or nearly in front, is so represented as to convey the notion of its being projected forward; and, though by mere comparative measurement occupying a much smaller space on the surface, yet to give the same idea of length or size as if it had been projected laterally.

Genre-painting is a term in art which originally indicated simply any class or kind of painting, and was always accompanied by a distinctive adjective or epithet, as *genre historique*, "historical painting," or *genre du paysage*, "landscape painting." The term *genre* is now limited to scenes from familiar or rustic life and to all figure pictures which from the homeliness of their subjects do not attain to the dignity of historical art.

Improvisatori is an Italian term, designating poets who without previous preparation compose on a given theme, and who sometimes sing and accompany their voice with a musical instrument. The talent of improvisation is found in races in which the imagination is more than usually alert, as among the ancient Greeks, the Arabs, and in many tribes of negroes. In modern Europe it has been almost entirely confined to Italy.

Great schools can spring only from a profound popular delight in expressions of beauty and truth. Art is not primarily didactic—not essentially religious or theoretical—but, rather, ethical, and delight is a moral quality. Thus the measure of a nation's advancement in regard to its ethical conceptions is an accurate measure of its love of art and of its capability to achieve great things in color, in marble and in architecture.

Perhaps it is too much to ask that the people read all that artists write. Granted that they do not, there still remains the fact that their hearts delight in expressions of truth, which their minds as yet do not grasp. And from such popular delight in things of intrinsic nobility came that sincerity which made it possible for Ghiberti, the Florentine, to fashion "The Gates of Paradise." And from the spirit of the people the great American school of art is to spring.

The term pre-Raphaelite has been applied to a body of artists, poets, and literary men who combined together (1850) to advocate, by precept and example, a return to nature in art. Their subsequent success and influence was largely owing to the support they received from the pen of John Ruskin. The name was adopted because they looked upon Raphael as "the first traitor to religious art," since he idealized his creations past recognition, and was the founder of what they deemed the "illusory" style.

The word caricature is used to express either a pictorial or a descriptive representation, in which, while a general likeness is retained, peculiarities are exaggerated so as to make the person or thing ridiculous. Although sometimes applied to literary descriptions, the word caricature, when used alone, is generally understood to relate to design. Caricature being a natural expression of natural feelings, must be as old as man himself, and possibly the eccentric markings found on rocks and in caves are not entirely due to bad drawing, but were intended in certain cases to ridicule the artist's enemies. Examples of caricature have been found in the art of the Egyptians, the Greeks, and the Romans.

The Façade (Fr.) is the exterior front or face of a building. This term, although frequently restricted to classic architecture, may be applied to the front elevation of a building in any style. It is, however, generally used with reference to buildings of some magnitude and pretension; thus, we speak of the *front* of a house, and the façade of a palace. The back elevation of an important building is called the rear façade, and a side elevation the lateral façade. The sides of a court, or cortile are also called façades, and are distinguished as north, south, etc., façades.

Relief, as distinguished from "sculpture in the round," is one of the oldest forms of mural decoration, and in many cases is a subordinate department of architectural art rather than a branch of sculpture proper. It is low relief (bas-relief, basso-rilievo), middle (mezzo-rilievo), and high relief (alto-rilievo) according as the carved figures project very little, in a moderate degree, or in a very considerable degree from the background. The ancient Egyptians practiced a peculiar kind of low relief and intaglio combined. The wall-sculptures of Assyria and Babylonia are mostly in very low relief.

Dissolving views are pictures painted upon glass, and made to appear of great size and with great distinctness upon a wall by means of a magic lantern with strong lenses and an intense oxyhydrogen light, and then—by removal of the glass from the focus, and gradual increase of its distance—apparently dissolved into a haze, through which a second picture is made to appear by means of a second slide, at first with a feeble, and afterwards with a strong light. Subjects are chosen to which such an optical illusion is adapted, such as representations of the same object or landscape at different periods.

The art of painting manuscripts with miniatures and ornaments termed "illumination," is one of the most remote antiquity. The Egyptian papyri containing portions of the Ritual or "Book of the Dead" are ornamented with veritable drawings and colored pictures. Except these papyri, no other manuscripts of antiquity were, strictly speaking, illuminated; such Greek and Roman manuscripts of the first century as have reached the present day being written only. It was in the middle ages, and in the hands of ecclesiastical scholars or copyists, that the art of illumination touched its highest development.

The Elgin Marbles are a celebrated collection of ancient sculptures, brought from Greece by the seventh Earl of Elgin, then ambassador to the Porte, and acquired from him by the nation for the British Museum in 1816 at the sum of $175,000. Early in the century he obtained a firman to examine, measure, and remove certain stones with inscriptions from the Acropolis of Athens, then a Turkish fortress. His agents, on the strength of this firman, removed the so-called Elgin Marbles, packed before Elgin's recall in 1803, but not finally conveyed to England till 1812. They are said to have cost the ambassador upwards of $370,000.

THE LARGEST STATUE ON RECORD.

"Liberty," Bartholdi's statue, presented to the United States by the French people in 1885, is the largest statue ever built. Its conception is due to the great French sculptor whose name it bears. It is said to be a likeness of his mother. Eight years were consumed in the construction of this gigantic brazen image. Its weight is 440,000 pounds, of which

146,000 pounds are copper, the remainder iron and steel. The chief part of the iron and steel was used in constructing the skeleton frame work for the inside. The mammoth electric light held in the hand of the giantess is 305 feet above tide-water. The height of the figure is 152½ feet; the pedestal 91 feet, and the foundation 52 feet and 10 inches. Forty persons can find standing-room within the mighty head, which is 14½ feet in diameter. A six-foot man, standing on the lower lip, could hardly reach the eyes. The index finger is 8 feet in length and the nose 3¾ feet. The Colossus of Rhodes was a pigmy compared with this latter day wonder.

SOME MARVELOUS PAINTINGS.

The following brief notes on a few wonderful creations of the brush will be perused with general interest:

Quentin Matsys, the Dutch painter, painted a bee so well that the artist Mandyn thought it a real bee and proceeded to brush it away with his handkerchief.

Parrhasios painted a curtain so admirably that even Zeuxis, the artist, mistook it for real drapery.

Zeuxis, a Grecian painter, painted some grapes so well that birds came and pecked at them, thinking them real grapes.

Apellês painted Alexander's horse Bucephalus so true to life that some mares came up to the canvas neighing, under the supposition that it was a real animal.

Velasquez painted a Spanish admiral so true to life that when King Felipe IV entered the studio, he mistook the painting for the man, and began reproving the supposed officer for neglecting his duty, in wasting his time in the studio, when he ought to have been with his fleet.

Apellês, being at a loss to paint the foam of Alexander's horse, dashed his brush at the picture in a fit of annoyance, and did by accident what his skill had failed to do.

The same tale is told of Protogenês, who dashed his brush at a picture, and thus produced "the foam of a dog's mouth," which he had long been trying in vain to represent.

STORY OF THE "ART DIVINE."

The cradle of the divine art was Egypt. The Hebrews took with them to Palestine the songs they had learned there, and many of the hymns of the early Christian Church were necessarily old Temple melodies. Ambrose, Archbishop of Milan (374), and after him Pope Gregory the Great (590), were the fathers of music in the Western Church. Harmonies were introduced in the ninth century; the present musical notation was invented by Guido Aretino (*d.* 1055); counterpoint was perfected by the Belgian Josquin Despres (*d.* 1521) and the Italian Palestrina (1555); and Italian opera was founded in 1600. The influence of the Italian school spread all over Europe; but in the sixteenth century England had a national school of her own, comprising such names as Tallis, Farrant, and Orlando Gibbons. Among the great composers of the seventeenth century were Monteverde in Italy, Lully in France, and Purcell in England. In the eighteenth century music made enormous advances, especially in Germany. Church music attained to its highest development under Bach, the oratorio under Handel (1685–1759), the opera under Mozart and Gluck, and orchestral music under Haydn and Beethoven

(1770-1827). The nineteenth century has been illustrated by such names as Mendelssohn, Weber, Meyerbeer, Auber, Schubert, Spohr, Schumann, Chopin, Rossini, Bellini, Verdi; and in England, Sterndale, Bennett and Macfarren. Of the later German school the chief exponents have been Wagner (1813–83) and Liszt (*d.* 1886). Other leading composers are Gounod, in France; Boito, in Italy; Rubinstein and Brahms, in Germany; Dvorák, in Bohemia, Grieg, in Scandinavia, and Sullivan, Mackenzie, Stanford and Cowen, in England.

THE PORTLAND VASE.

The Portland Vase was a celebrated ancient Roman glass vase or cinerary urn found during the pontificate of Urban VIII. (1623-44) in a marble sarcophagus (of Alexander Severus, it is thought, and his mother Mammæa) in the Monte del Grano, near Rome. It was at first deposited in the Barberini Palace at Rome, and hence it is sometimes called the Barberini Vase. It was bought in 1770 by Sir William Hamilton, and in 1787 by the Portland family, who in 1810 deposited it in the British Museum, where it is now shown in the "Gold Room." The ground of the Portland Vase is of dark blue glass, and the figure subjects which adorn it are cut in cameo style in an outer layer of opaque white glass. In the official *British Museum Guide* (1890) it is stated that the composition is supposed to represent on the obverse Thetis consenting to be the bride of Peleus, in the presence of Poseidon and Eros; on the reverse, Peleus and Thetis on Mount Pelion. On the bottom of the vase is a bust of Paris. The vase was broken to pieces by a lunatic in 1845, but the fragments were very skillfully united again. The Portland Vase is ten inches high, and is the finest specimen of an ancient cameo cut-glass vase known. There are only two others of similar character which approach it in beauty—viz. an amphora in the Naples Museum and the Auldjo Vase. But fragments of the same kind of glass exist with work upon them quite as fine. In the end of the eighteenth century Josiah Wedgwood, the famous potter made fifty copies in fine earthenware of the Portland Vase, which were originally sold at twenty-five guineas each. One of these now fetches $1,000.

THE IMPRESSIONISTS.

Impressionism made its first public appearance in the *Salon* of 1867. Founded, it is claimed, by Edouard Manet, its aim is to rid art of the trammels of tradition and to look at nature—and to portray her—in a fresh and original manner. Therefore conventionalities in lighting, grouping, etc., are carefully avoided, while personal and immediate "impressions" of nature must be rendered with absolute truth. In the words of one of their ablest exponents, they hold that the eye of the painter "should abstract itself from memory, seeing only that which it looks upon, and that as for the first time, and the hand should become an impersonal abstraction, guided only by the will, oblivious of all previous cunning." In the works of most of the impressionists little selection of subject or care for beauty of color, form, or expression is visible; and their art, touching as it would seem by an instinctive preference on some of the most unlovely aspects of the nineteenth century existence, dealing with the life of the jockey and the ballet-girl, and portraying the worst atrocities of modern costume, has frequently fallen into dire depths of

ugliness and vulgarity. Certain points of resemblance to the aims and methods of the impressionists are to be found in the works of such able painters as J. M. Whistler and J. S. Sargent, and still more distinctly in those of several of the younger Paris-trained English painters who have exhibited in the Suffolk Street Gallery and in the Nineteenth Century Art Club.

THE GREAT MASTERS AND GREAT SCHOOLS.

The chief schools of painting are the Florentine, founded on the Byzantine school, its principal painters being Cimabue (1240-1300), Giotto (1276-1336), Leonardo da Vinci (1452-1520), Michael Angelo Buonarotti (1474-1564), Carlo Dolci (1616-86); the *Flemish*—J. Van Eyck (1366-1441), Quentin Matsys (1460-1529), Breughel (1565-1625), P. P. Rubens (1577-1640), Vandyck (1599-1641), Snyders (1579-1657), Hobbima (1611-70), Teniers, jun., (1610-94), Rosa Bonheur (1822), the *Umbrian*, its chief exponent being P. Perugino (1446-1524); the *Venitian*—Giorgione (1477-1511), Sebastian del Piomno (1485-1547), Titian (1477-1576), Paul Veronese (1532-88), Tintoretto (1512-94); the *Roman*—Raphael (1483-1520), Paolo Perugino (1446-1524), Giulio Romano (1492-1546), Canaletti (1697-1768); the *German*—Hans Holbein (1495-1543), Sir Peter Lely (1617-80), Sir Godfrey Kneller (1648-1723), P. von Cornelius (1787-1867), F. Overbeck (1789-1869), W. Kaulbach (1805-74); the *Lombardian*—Correggio (1494-1534), Permegiano (1503-40), Annibal Caracci (1568-1609), Guido (1575-1642), the *Bolognese*—Domenicho (1581-1641), Guercino (1590-1666); the *Dutch*—Both (1600-50), Paul Potter (1625-54), A. Cuyp (1606-72), A. Van der Velde (1635-72), Rembrandt (1606-74), G. Douw (1630-80), Mieris (1635-81), Ruysdael (1636-81), I. Van Ostade (1621-49), A. Van Ostade (1610-85), Berghem (1624-85), Wouvermans (1620-88), W. Van der Velde (1633-1707), Huysum (1682-1749), and more recently L. Alma Tadema (1836), Schotel, Scholfhart, Van Os, Van Stry, Ommeganck, Josef Israels, Mesdag, Maris and others; the *English*—Walter Dobson (1610-46), Sir J. Thornhill (1676-1732), William Hogarth (1697-1764), J. Mortimer (1739-79), R. Wilson (1714-82), Gainsborough (1727-88), Sir J. Reynolds (1723-92), Romney (1734-1802), George Morland (1763-1804), Barry (1741-1806), Opie (1761-1807), Benjamin West (1738-1820), H. Raeburn (1786-1823), J. Ward (1779-1859), Fuseli (1741-1825), J. Constable (1776-1837), D. Wilkie (1785-1841), Haydon (1786-1846), Collins (1788-1847), Etty (1787-1849), Turner (1775-1851), Mulready (1786-1863), Sir C. L. Eastlake (1793-1865), T. Creswick (1811-69), Maclise (1811-70), Sir G. Hayter (1792-1871), Sir E. Landseer (1802-73), E. M. Ward (1816-79), R. Redgrave (1804), W. P. Frith (1819), J. Faed (1820), T Faed (1826), H. S. Marks (1829), J. E. Millais (1829), Sir F. Leighton (1830), Vicat Cole (1833), G. D Leslie (1835), E. J. Poynter (1836), E. Armitage (1817), Edwin Long (1839-91), P. H. Calderon (1833), T. S. Cooper (1803), F. Holl (1845), F. Goodhall (1822), Birket Foster (1812), Sir John Gilbert (1817), H. Herkomer (1849), J. C. Horsley (1817), W. Q. Orchardson (1835), W. W. Ouless, (1848) G. F. Watts (1820), Marcus Stone (1840), John Pettie (1839), E. J. Gregory (1850), J. Mac Whirter (1839), C. Val Prinsep (1836), J. S. Lucas (1849), B. W. Leader (1831). Among English painters the *Pre-Raphaelite* movement, which commenced in 1849, as a protest against conventionalism in idea as well as execution in art, numbered among its principal exponents J. E. Millais, Holman Hunt (1827), G. D. Rossetti (1828-82), F. Madox Brown (1821), McNeil Whistler (1834), and E. Burne-Jones (1833); the *French*—Jean Cousin (1501-89), LeSeur (1617-55), N. Pousin (1594-1665), Claude Lorraine

(1600-82), Le Brun (1619-90), Watteau (1684-1721), C. J. Vernet (1714-89), David (1748-1825), A. C. H. Vernet (1758-1836), J. E. H. Vernet (1789-1863), De la Croix (1798-1863), Géricault (1774-1829), J. D. A. Ingres (1781-1367), Scheffer (1795-1858), Paul Delaroche (1797-1856), Decamps (1803-66), Corot (1796-1875), Millet (1815-75), Regnault (1843-71), B. Lepage (1848-84), Meissonier (1815-91), Gerome (1824), Bougereau (1835), Constant (1845), Gustave Doré (1833-83); the *Spanish*—Velasquez (1599-1660), Murillo (1618-85); the *Neapolitan*—Salvator Rosa (1615-73), and the *American*—Malbone (1777-1807), Copley (1738-1815), C. W. Peale (1741-1827), Gilbert C. Stuart (1756-1828), J. Trumbull (1756-1843), W. Allston (1779-1843), Thomas Cole (1801-48), Rembrandt Peale (1778-1860), W. M. Hunt (1824-79), W. Page (1811-85), D. Huntingdon (1816), S. R. Gifford (1823-80), Eastman Johnson (1824), Elihu Vedder (1836), Bierstadt (1830). *Russian* art, dormant since the Byzantine period, has during the last forty years produced Swedomsky Verestchagin (1842) and Kramskoë. *Scandinavian* art has been represented in modern times by Uhde and Edelfeldt.

THE SYMBOLISM OF COLORS.

White was the emblem of light, religious purity, innocence, faith, joy and life. In the judge, it indicates integrity; in the sick, humility; in the woman, chastity.

Red, the ruby, signifies fire, divine love, heat of the creative power, and royalty. White and red roses express love and wisdom. The red color of the blood has its origin in the action of the heart, which corresponds to, or symbolizes, love. In a bad sense red corresponds to the infernal love of evil, hatred, etc.

Blue, or the sapphire, expresses heaven, the firmament, truth from a celestial origin, constancy and fidelity.

Yellow, or gold, is the symbol of the sun, of the goodness of God, of marriage and faithfulness. In a bad sense yellow signifies inconstancy, jealousy and deceit.

Green, the emerald, is the color of the spring of hope, particularly of the hope of immortality and of victory, as the color of the laurel and palm.

Violet, the amethyst, signifies love and truth, or passion and suffering. Purple and scarlet signify things good and true from a celestial origin.

Black corresponds to despair, darkness, earthliness, mourning, negation, wickedness and death.

THE ORGAN IN AMERICA.

Until the middle of the nineteenth century little interest was taken in organ-building in America. The erection of the great organ in the Music hall, Boston, by a German builder, Walcker, of Würtemberg, gave the first impetus to public interest in the matter. There are now several good organ-makers, and one of them, Roosevelt, has invented "the automatic adjustable combination," which enables the player to place any required combination of stops under immediate control, and to alter such combinations as frequently as desired. By his construction of the wind-chest, also, each pipe has its own valve, actuated by compressed air. Among the largest organs in America are the organ of the Catholic cathedral, Montreal, of the cathedral of the Holy Cross, Boston, which possesses eighty-three stops; the Music Hall, Cincinnati, with ninety-six stops and four manuals, and the Tremont Temple, Boston, with sixty-five stops.

MEANINGS OF MUSICAL TERMS.

ACCELLERANDO, or ACCEL. Quicken the time gradually.
ADAGIO. Very slow.
AD LIBITUM, or AD LIB. At will.
AFFETTUOSO. Affecting, with pathos.
AGITATO. Agitated.
AL FINE. To the end.
ALLEGRETTO. Somewhat cheerful, but not so quick as *Allegro.*
ALLEGRO. Quick.
AL SEGNO. To the sign, signifying that the performer must go back to the sign, :S:, and play from that mark to the word *Fine.*
AMOROSO. Lovingly.
ANDANTE. Somewhat slow.
ANDANTINO. Not quite so slow as *Andante.*
ANIMATO. In an animated style.
A POCO A POCO. Little by little.
ARIA. An air or song.
ASSAI. Very, extremely.
A TEMPO. In the regular time.
BIS. Twice (repeat).
BRILLANTE. Brilliant.
CALANDO. Diminishing gradually in tone and speed.
CANTABILE. In a graceful, singing style.
CON MOTO. In agitated style; with spirit.
CON SPIRITO. With quickness and spirit.
CODA. A few bars added to terminate a composition.
COLLA VOCE. With the voice or melody.
CON BRIO. With brilliancy.
CON EXPRESSIONE. With expression.
CRESCENDO, or CRES. Gradually increase the volume of tone.
DA CAPO, or D. C. Repeat from the beginning to the word *Fine.*
DECRESCENDO, or DECRES. Gradually diminish the volume of tone.
DELICATO. Delicately.
DEL SEGNO. See *Segno.*
DIMINUENDO, or DIM. Same as *Decrescendo.*
DOLCE, or DOL. In a sweet, smooth style.
DOLOROSO. In a mournful, pathetic style.
E. And.
EXPRESSIVO, EXPRESSIONE. } With expression.
FINE. The end.
FORTE, or F. Loud.
FORTISSIMO, or FF. Very loud.
FORZANDO, or FZ. Signifies that the note is to be given peculiar emphasis or force.
FORZA. Force.
FUOCO. With fire.
GRAVE. Extremely slow.
GRAZIOSO. In a graceful, elegant style.
IMPROMPTU. An extemporaneous production.
L. H. Left hand.
LARGHETTO. Slow and solemn, but less so than *Largo.*
LARGO. Very slow and solemn.
LEGERAMENTE. Lightly, gaily.
LENTANDO. Slower by degrees.
LEGATO. In a smooth and connected manner.
LENTO. In a slow time.
LOCO. Place, play as written.
MAESTOSO. Majestic and dignified.
MARTELLATO. Struck with force.
MENO. Less.
MEZZO, or M. Neither loud nor soft—medium.
MEZZO FORTE, or MF. Rather loud.
MEZZO PIANO, or MP. Rather soft.
MODERATO. Moderate.
MOLTO. Very.
MOSSO. Movement.
MOTO, or CON MOTO. With agitation and earnestness.
MORENDO. Dying away.
NON TROPPO. Not too much.
OBLIGATO. Cannot be omitted.
OTTAVA, or 8VA. An octave higher.
PATETICO. Pathetically.
PASTORALE. A soft and rural movement.
PIANO, or P. Soft.
PIANISSIMO, or PP. Very soft.
PIU. Very.
POCO. A little, somewhat.
POMPOSO. Pompous, grand.
PRESTO. Very quick.
PRESTISSIMO. As quick as possible.
QUASI. As if.
RALLENTANDO, or RALL. A gradual diminution of tone and retarding of movement.
RELIGIOSO. In a solemn style.
RITARDANDO, or RITAR., or RIT. Gradually slower.
RINFORZANDO, or RF. With additional force.
RITENUTO. Hold back the time at once.
SCHERZANDO. Playfully.
SEGUE. Continue as before.
SERIA. Seriously.
SEMPRE. Throughout—always.
SEMPLICE. In a simple, unaffected style.
SEGNO, or :S:. Sign; as, *Al Segno,* to the sign; *Dal Segno,* repeat from the sign to the word *Fine.*
SENZA. Without.
SFORZANDO. Emphasized.
SINCOPATO. Forced out of time.
SMORZANDO. Smoothed, decreased.
SOAVE. Soft and delicate.
SOTTO VOCE. In an undertone.
SOSTENUTO. In a smooth, connected style.
SPIRITO, or CON SPIRITO. With spirit.
STACCATO. Detached, short.
TEMPO. In time.
TEMPO DI MARCIA. In marching time.
TEMPO DI VALSE. In waltz time.
TEMPO PRIMO. In the original time.
TRILLANDO. Shaking on a succession of notes.
TRANQUILLO. Tranquilly.
TUTTO FORZA. As loud as possible.
VELOCE. With velocity.
VIGOROSO. Boldly, vigorously.
VIVACE. With extreme briskness and animation.
VIVO. Animated, lively.
VOLTI SUBITO. Turn over the pages quickly.
ZELOSO. With zeal.

SIDE-LIGHTS ON HISTORY.

Here is the moral of all human tales;
'Tis but the same rehearsal of the past,
First freedom, and then glory—when that fails,
Wealth, vice, corruption—barbarism at last,
And history, with all her volumes vast,
Hath but one page.
—BYRON.

INFLUENCES FOR GOOD OR EVIL.

The word Khedive signifies lord.

Quebec is termed the Gibraltar of America.

Bismarck was called the "Boot of Prussia."

The life of Napoleon III. was attempted six times.

Potsdam has been called the Versailles of Prussia.

Byron terms the era of Napoleon I. the age of bronze.

El Almirante, without any proper name, refers to Columbus.

Washington first called New York State "the seat of empire."

The Greek Herodotus, 450 B. C., is called the Father of History.

James I. of England was termed the Wisest Fool in Christendom.

The 'third house" of a legislature is a term applied to the lobby.

Machiavelli is spoken of by the Florentines simply as "Il segretario."

The so-called Paradise of Europe is the valley of the Arno, in Tuscany.

Pandours were the fierce, irregular troops of Austria some fifty years ago.

Knight service in feudal times was held to amount to forty days per year.

The Rubicon was a small stream that divided cis-alpine Gaul from Italy.

In recent European history the term fourth estate applies to the press.

The younger squirearchy of Prussia are what constitute the "Yunker" party.

To Patrick Henry we owe the phrase, "give me liberty or give me death."

The term "nation of shopkeepers" was applied to England by Napoleon.

Orange is a petty principality in Avignon, owned by the Nassau family.

Mehemed Ali, pacha of Egypt (1760–1841), was the "Napoleon of the East."

Khaled, Mahommed's lieutenant, was called by Orientals the "Sword of God."

Emancipation of slaves took place in all Britain's colonies on August 28, 1833.

Shah is but an abbreviation of the larger title Shah-in-Shah, King of Kings.

"Well-beloved" was a title given to a most licentious king, Louis XV. of France.

Dibdin's famous sea songs were written to promote loyalty in the British navy.

There are ten republics in South America and two in North—Europe has only two.

The French King Clovis (481–511) was the first entitled Eldest Son of the Church.

Mossbacks is defined as a sobriquet for the remnants of the ante-bellum Democracy.

Jayhawkers was a name for guerillas or bushrangers during the Kansas troubles of 1856.

Frederick I., emperor of Germany (1121–1152), was the one called Barbarossa (Red-beard).

It was the first Napoleon who said "there is but one step from the sublime to the ridiculous."

The States of the Church are often referred to, since 1077 A. D., as the Patrimony of St. Peter.

Monsieur de Paris was a name given to the public executioner during the French Revolution.

"There is a higher law than the Constitution" is a phrase from one of W. H. Seward's speeches.

Black Watch was a name given to the forty-second regiment (Highlanders) of British infantry.

The Sailor King was a name applied to William IV. of England. He had served long in the navy.

The Kings of Muscovy, Sweden, Denmark, Poland and Hungary all became Christians in 990 A. D.

In Germany the term "reptile bureaucracy" applies to certain journalists in receipt of government pay.

Great universities date from: Paris, 1109; Oxford, 1150; Cambridge, 1209; Glasgow, 1450; Dublin, 1591.

Mrs. O'Leary's cow is the famous animal that is believed to have started the great Chicago fire of 1871.

A yellow flag denotes quarantine; a black flag indicates a pirate; a red flag, defiance; a white flag, truce.

The "Terror" applied to the period in French history (1793–1794) just prior to the death of Robespierre.

It is 440 years since the Christian church of Santa Sophia became the chief Mahommedan mosque of the Turks.

Panslavism means the union of all the Slavic nations into one: Russia, Poland, Hungary, Bohemia, Bulgaria, etc.

The "Iron" crown of Lombardy, now held by Humbert of Italy, is in reality a splendidly bejewelled golden crown.

There is no Emperor of Germany; the true title is either German Emperor or "Emperor of the German Kingdoms."

"The Primrose League" of England was founded in 1883, in memory of Earl Beaconsfield. It has now 1,000,000 members.

The Covenanters were Scotchmen who bound themselves together in 1638 and took up arms to resist the introduction of the Episcopalian liturgy into the Scottish Church.

Court Jesters were persons who were kept in the households of princes and lesser dignitaries to furnish amusement by their real or affected folly, and hence commonly called Court Fools.

Condottieri are bands of mercenaries, ready to serve under any leader. They were common in Europe during the middle ages and took a considerable part in the endless feuds of the Italian states.

The *Chambre Ardente* was an extraordinary French tribunal which frequently sentenced to death "by fire." It was used to investigate poisoning cases after the execution of the Marchioness of Brinvilliers.

The round table is the subject of one of the legends in connection with King Arthur, who, it is said, dined at a circular table capable of seating 150 of his bravest followers, termed Knights of the Round Table.

Vinegar will not split rocks, so Hannibal could not thus have made his way through the Alps. Nor will it dissolve pearls, so that the story of Cleopatra drinking pearls melted in vinegar must have been a fiction.

The original Electors of Germany, who chose the Kaiser, were the king of Bohemia, duke of Saxony, margrave of Brandenburg, count palatine of the Rhine, and the archbishops of Mayence, Treves and Cologne.

Dacoits are robbers of Northern India and Burmah, who make raids in armed bands. They gave great trouble to the occupying force in the annexation of Burmah, but have practically been exterminated by the British army.

The Dannebrog is the oldflag of the Danes, and also the name of an order of knighthood said to have been instituted in 1219. The jewel is a copy of the flag: a white enameled gold cross, suspended by a white ribbon edged with red.

Jacobins were the members of a political club which exercised a great influence during the French Revolution. It was originally called the *Club Breton*, and was formed at Versailles, when the States-general assembled there in 1789.

Formerly, in England, branding was a method of punishment, but was abolished (1829) in the reign of George IV. It was performed with a red-hot iron on the face, hand or other part of the body. Branding in the British Army abolished, 1879.

In Roman history there were two famous coalitions of three men each, called triumvirates, formed for ruling the state: (1) Between Julius Cæsar, Pompey and Crassus (50 B.C.); (2) between Octavius Cæsar, Mark Antony and Lepidus (43 B.C.)

The Italian city, Venice, is often called the "Bride of the Sea," from the ancient ceremony of the doge marrying the city to the Adriatic by throwing a ring into it, pronouncing these words, "We wed thee, O sea, in token of perpetual dominion."

It is not generally known that the four kings of a pack of cards are Charlemagne (*the Franco-German king*), David (*the Jewish king*), Alexander (*the Macedonian king*), and Cæsar (*the Roman king*). These four kings are representatives of the four great monarchies.

The Young England Party was a party formed during the corn-law agitation of 1842–46. It consisted of young Tory aristocrats, prominent among whom was Lord John Manners, who advocated a return to a modified feudalism. Disraeli lent the party his support.

The Confederation of the Rhine, formed July 12, 1806, was a federation of the Germanic States, formed by Napoleon Bonaparte, whose disastrous Russian campaign (1812) caused the dissolution of the Confederation, the Germanic Confederation taking its place.

The Decemvirs were men who drew up a code of Roman laws, and who, in 451 B.C., had the whole government of Rome in their hands. They were successful in their administration till the incident of Appius Claudius and Virginia led to the appointment of consuls.

The triple expression, Liberty, Equality, Fraternity (*Liberté, Égalité, Fraternité*), as the motto of the French Republic, dates from the time of the first revolution. Equality, it should be noted, merely means equality before the law and the absence of class privileges.

An Africander is a descendant of European parents born in South Africa. An association called the *Africander-Bond* was formed in Cape Colony after the Transvaal war, the object of which was the consolidation and extension of the Dutch population in South Africa.

The Young Ireland Party was an Irish patriotic party which came to the front in 1848, shortly after O'Connell's death. They had resort to physical force, and several of their leaders, including Smith O'Brien, John Mitchell and Thomas Francis Meagher, were transported.

Concordat is a term sometimes applied to secular treaties, but generally employed to denote an agreement made between the pope, as the head of the Roman Catholic Church, and a secular government, on matters which concern the interests of its Roman Catholic subjects.

The Vendéan rising in La Vendée, a maritime department of France, on the Atlantic, in favor of the Bourbons (1793), was eventually suppressed by General Hoche (1796). Georges Cadoudal, the last Vendéan chief, was executed (1804) for his share in a plot against the life of Napoleon, when first consul.

Sicilian Vespers is the designation of the massacre of the French which began at Palermo, at vespers, on Easter Monday, March 30, 1282. The insurrection spread to the rest of the island, and ended in the overthrow of the government of Charles of Anjou and the establishment of the dynasty of Aragon.

Of deep historic significance were the Bulgarian Atrocities, a title given to an insurrection which in 1876 broke out in Bulgaria and was repressed with horrible cruelties, raising a wave of indignation throughout Europe. Mr. Gladstone published an article, "Horrors in Bulgaria," in September of that year.

The Illuminati was a name given to several societies or sects, but particularly to the Order of the Illuminati, a secret society founded by Adam Weishaupt at Ingolstadt, Bavaria, 1776. It was deistic and republican in principle, and spread very widely throughout Europe. Suppressed in Bavaria, 1784.

The oft-denounced French instrument, called by historians the *lettre de cachet*, was a sealed letter, in virtue of which the obnoxious person named therein might be arrested and sent either to prison or into exile, without trial or even being informed of the nature of his offence. This infamous tyranny was abolished by the revolution.

The Council of Ten was a secret tribunal of the Republic of Venice, armed with unlimited powers (1310) in watching over the safety of the state. It punished at discretion all secret enemies of the Republic. At first it was prorogued annually, but in 1325 it was made perpetual, and continued as long as the Venetian Republic endured.

The Continental System was the name given to Napoleon's plan for shutting England out from all connection with the continent of Europe. This system began with Napoleon's famous "Berlin Decree" of November 21, 1806, which declared the British Islands in a state of blockade, and prohibited all commerce and correspondence with them.

A representation of the half-moon with the horns turned upwards, called a crescent, is often used as an emblem of progress and success. It was the emblem of the Greek before it became that of the Turkish rule; but it was not adopted by the Turks from the Greeks, as is often said. It had been used by them hundreds of years before in Central Asia.

What is termed historically the "Boston Tea-party" (December 16, 1773) consisted of those citizens of Boston who, disguised as Indians, boarded the three English ships which had just come into the harbor, and threw into the sea several hundred chests of tea, by way of protest against English taxation of America without a representation in parliament.

Iconoclasts (Gr. *eikon*, "an image," and *klazo*, "I break"), was the name used to designate those in the Church from the eighth century downwards, who have been opposed to the use of sacred images (i. e. of statues, pictures, and other sensible representations of sacred objects), or at least to the paying of religious honor or reverence to such representations. The iconoclast movement had its commencement in the Eastern Church.

Anti-semites, the modern opponents of the Jews in Russia, Roumania, Hungary and Germany. In these countries the Jews are found in great numbers, and their constantly increasing wealth and influence excite popular jealousy and alarm. Brutal outrages were inflicted upon the Jews in Russia and Hungary in 1881-4, and anti-semitic leagues were formed in 1881 to restrict the liberty of Jews in Germany and other countries.

Abdication is the resignation of any office, political or otherwise. It implies the surrender of powers previously conferred or inherited, and is generally the result of a desire on the part of the person abdicating for retirement from public to private life. The use of the word is confined to the surrender of dignities and emoluments of importance, and is thus distinguished from the term "resignation" as applied to the petty offices of life.

Tribunes of the people were first appointed at Rome on the succession of the plebs to Mons Sacer (494 B. C.). The number, at first two, was ultimately increased to ten. Their peculiar function was to look after the interests of the plebs as opposed to those of the patricians. In the course of time the tribunes of the people became the most important officers in the state.

The carte blanche was a "blank paper" authenticated with an authoritative signature, and intrusted to some one to be filled up as he may think best. Thus in 1649 Charles II. tried to save his father's life by sending from the Hague to the Parliament a signed carte blanche to be filled up with any terms which they would accept as the price of his safety.

The "cap of liberty" worn in the Roman states by manumitted slaves, was made of red cloth. Those who wore it were called "pileati," *i.e.* wearers of the "pileus." In revolutionary émeutes at Rome the pileus was sometimes hoisted on a spear. After the murder of Cæsar, Brutus and his rebels adopted the red cap as a token of their republican sentiments.

The national badge of France since 1789 has been the tricolor. It consists of the Bourbon *white* cockade, and the *blue* and *red* cockade of the city of Paris combined. It was Lafayette who devised this symbolical union of king and people, and when he presented it to the nation, "Gentlemen," said he, "I bring you a cockade that shall make the tour of the world."

The famous retreat of the ten thousand occurred B. C. 401-399. It was conducted by Xenophon, the historian, who had joined the expedition of Cyrus. In the battle of Cunaxa Cyrus lost his life, and the Greeks were left without a leader. Xenophon volunteered to lead them back to Greece and has left a historical narrative of this famous retreat, called "Xenophon's Anabasis."

All youthful readers know about the buccaneers, a name given to the celebrated associations of piratical adventurers, who, from the commencement of the second quarter of the sixteenth century to the end of the seventeenth, maintained themselves in the Caribbean seas, at first by systematic reprisals on the Spaniards, latterly by less justifiable and indiscriminate piracy.

The Montagnards were a party in the first French Revolution under the leadership of Robespierre. They occupied in the Convention the most elevated seats called *La Montagne*, in opposition to the *Plaine*, or the lowest seats occupied by the moderate party called the *Girondins*. The Mountain party overthrew the Girondists on May 31, 1793, but was in turn overthrown "*le 9 Thermidor, An II*," when Robespierre met with his downfall (1794). Both the Mountain and the Plain were left of the speaker.

Thugs is the name for a religious fraternity in India, which, professedly in honor of the goddess Kâli, the wife of Siva, was addicted to the committal of murders, and lived upon the plunder obtained from its victims. Banding together in gangs, they assumed the appearance of ordinary traders, and insinuating themselves into the confidence of unsuspecting fellow-travelers, killed them by strangling. They were bound together by bloody oaths, and carried on systematic assassination on a large scale.

Blood-money was the money paid by press-gangs to anyone who informed them of a man who had deserted from the naval service, or who was instrumental in giving up a deserter to the press-gang. The deserter ought to have been a sailor, but in a "hot-press" landsmen were often kidnapped. "Blood-money" now means money paid to a person for informing against a felon.

The flag of the prophet, or "Sanjak-Sheriff," is the sacred banner of the Mahommedans. Originally the white turban of the Koreish, captured by Mahommed. Subsequently a green flag was substituted, being the curtain which hung before the door of Ayesha, one of the prophet's wives. It is preserved most carefully in a chapel of the seraglio, and watched over by several emirs.

The Hanseatic League was a trades-union to protect merchandise from pirates and the pillage of nobles. It began with the three towns of Hamburg, Bremen, and Lübeck, but ultimately contained eighty-five trading towns. The league was divided into four colleges, viz. Lübeck, Cologne, Brunswick, and Dantzig. Of these Lübeck was the chief, and presided in all the conferences.

The Calvinists of the Cevennes, after the Revocation Edict, took up arms under their leaders Cavalier and Roland, and defeated the French troops sent against them by Louis XIV. again and again. At last the Duke of Berwick extirpated them and desolated the whole province of the Cevennes in 1705. They were called Camisards from the *camise* or smock which they wore.

The carmagnole was a revolutionary *dress* worn in France, especially during the reign of terror. It consisted of a blouse, a red cap, and a tricolored girdle. The term is applied also to a street *dance*, in which men, women and children promiscuously took hold of hands, danced in a ring, ran butting down the street, broke into small parties, and danced vehemently like Bedlamites, till ready to drop.

The Vikings were the piratical Northmen who infested the coasts of the British Islands and of France in the eighth, ninth and tenth centuries. This word is quite unconnected with "king," being derived from the Scandinavian *vik*, "a bay" (the same which appears in the names Lerwick, Berwick, etc.), and this class of marauders were so called because their ships put off from the bays and fiords.

Breaking on the wheel is a mode of capital punishment formerly in use in various European countries. In France it was abolished at the Revolution (1789), but it is said to have been inflicted in Prussia so late as 1841. The victim was placed upon a wheel, his arms and legs extended along the spokes, and, as the wheel was turned rapidly round, his limbs were broken by the executioner with a hammer or iron bar. The French word *roué* ("a rake") is derived from this form of capital punishment.

The salic law was the code of the Salian Franks, introduced into France (Gaul) by the Franks. It contained four hundred articles, chiefly concerning debt, theft, murder, and battery, the penalty in every case being a fine. The most famous article of the code is Title lxii. 6, according to which only males could succeed to the Salic land or *lod*, *i.e.* to the lands given for military service. In 1316, at the death of Louis le Hutin, the law was extended to the crown, and continued to be observed to the end of the monarchy.

A comparatively new term is "boycotting," the system of combining to hold no relations, social or commercial, with a neighbor, in order to punish him for differences in political opinion—a kind of social excommunication. It was first formulated by Mr. Parnell, the Irish leader, at Ennis, on 19th September, 1880, and derived its name from one of the first victims, Captain Boycott, a Mayo factor and farmer.

The Guelfs were dukes of Bavaria, who contended with the house of Hohenstauffen for pre-eminence. From a mere German feud the contention advanced to a long and bitter struggle between the civil and spiritual powers. The Guelfs were the pope's party, and labored to set the pope above the crowned princes. The Ghibellines were the imperial or civil party, and tried to set the kaiser above the pope.

Daimios, the old territorial nobles of Japan, who, before the revolution of 1871, enjoyed almost absolute power within their own domains, paying little more than nominal allegiance to the mikado. At the restoration of the mikado, however, they were obliged to surrender their castles and muster-rolls to the government, who took away their privileges and relieved them of the duty of paying allowances to their retainers.

The ceremony of wedding the Adriatic to the doge of Venice was instituted in 1174 by pope Alexander III., who gave the doge a gold ring from his own finger in token of the victory achieved by the Venetian fleet at Istria over Frederick Barbarossa. The pope, in giving the ring, desired the doge to throw a similar one into the sea every year on Ascension-Day in commemoration of this event. The doge's brigantine was called *Bucentaur*.

The prætorian guard was originally the cohorts of the prætor, then the imperial guard. They received higher pay than other soldiers, and enjoyal several important privileges. There were originally nine prætorian cohorts; Vitellius increased the number to sixteen, Septimus Severus further increased the number. For many years they acted as dictators, and their insolence, want of discipline, avidity and insubordination became proverbial.

The spirit or pugnacity of the British nation is well expressed by the term British Lion, as opposed to *John Bull*, which symbolizes the substantiality, obstinacy, and solidity of the British nation, with all its prejudices and national peculiarities. To rouse John Bull is to tread on his corns, to rouse the British Lion is to blow the war-trumpet in his ears. The British Lion also means the most popular celebrity of the British nation for the time being.

The "carbonari" were secret societies which flourished both in Italy and France at the beginning of this century. The aim of the societies was the overthrow of the despotic and reactionary governments then existing. Originating in Italy, while under the rule of the Bonapartes, they took their name from the trade of charcoal burning pursued in that part of Italy. There were four grades with mystic rites of initiation. The system lived till about 1848.

The Templars were a famous military order, which, like the Hospitallers and the Teutonic Knights, owed its origin to the Crusades. In the year 1119 two comrades of Godfrey de Bouillon, Hugues de Payen and Geoffroi de Saint-Adhémar, bound themselves and seven other French knights to guard pilgrims to the holy places from the attacks of the Saracens, taking before the patriarch of Jerusalem solemn vows of chastity, poverty, and obedience.

The well known decoration of the Legion of Honor belongs to an order of merit instituted by Napoleon in 1802 as a recompense for military and civil services. It was ostensibly founded for the protection of republican principles and the laws of equality, every social grade being equally eligible. The constitution and incidents of the order have been repeatedly changed by the successive executive powers of France during the course of the nineteenth century.

The Great Fire or "The Great Fire of London" occurred in 1666, the year after the Plague, which it put an end to. It broke out at a bake house near London Bridge. Only six persons perished in the fire; though six hundred streets, thirteen hundred houses, eighty churches, St. Paul's Cathedral, the Custom-house, Guildhall, and four stone bridges were destroyed. The people, to the number of two hundred thousand, camped out in the fields of Islington and Highgate.

Fermiers généraux was the name given in France, before the Revolution of 1789, to a privileged association who "farmed" the public revenues. It was a shocking jobbery, the *fermiers* being selected either by the minister of finance (who made his selection for a money consideration) or by the king's mistresses. The number was forty but rose to sixty a little before the revolution. These farmers paid the king a fixed sum and made what profit they could out of the taxpayers.

Sans-culottes was a name of contempt given to the democrats in the French Revolution; as much as to say, they were only the tag-rags or rag-a-muffins of society. Subsequently they gloried in the name and even affected negligence of dress, going about in a blouse, red cap, and wooden shoes. The red nightcap adorned with a tricolored cockade was called the "*bonnet rouge*." Blouse=blooze. The Sans-culottes had a host of songs and a dance (called the Carmagnole) of their own.

It was in 1879, under the auspices of the late Mr. Parnell, that the Irish national movement called the "Land League" was set on foot, with the stated object of purchasing the land of Ireland for the Irish people. Large sums of money were subscribed for its equipment, chiefly in America, but it was suppressed in 1881, on the allegation of outrages committed against landlords. It was succeeded by the National League, still existing, and to both may be largely credited the present standing of the Home Rule agitation.

The seat occupied by the French monarch at the sessions of parliament was called the bed of justice, and historically signified a solemn session, at which the king attended to overrule the acts of parliament or to enforce upon it acts that it had rejected. This was instituted upon the theory of the old constitution that the authority of parliament, being vested in the crown, was merely delegated, and that with the presence of the king the delegated power ceased. The last bed of justice was held by Louis XVI. at Versailles in 1787.

The Chartists were a body of the English people who, on the passage of the Reform Bill (1832), demanded the People's Charter, the points of which were: (1) Universal Suffrage; (2) Vote by Ballot; (3) Annual Parliaments; (4) Payment of Members; (5) Abolition of Property Qualification; (6) Equal Electoral Districts. Great demonstrations and damage done in 1838–9. After demonstration and presentation of petition April 10, 1848, the movement subsided, although the government had meanwhile dealt severely with some of the leaders.

According to the legend, "Thundering Legion" was the popular name given to the twelfth legion of the Roman army after the defeat of the Quadi (174 A.D.). The legion being shut up in a defile and reduced to great straits for want of water, the Christian soldiers united in prayer; and, in answer to their prayers, not only was rain sent, which enabled the Romans to quench their thirst, but the rain was followed by a fierce storm of hail, with thunder and lightning, which threw the enemy into disorder and enabled the Romans to gain a complete victory.

Jacobites (from the Lat. *Jacobus*, "James") was the name given after the Revolution of 1688 to the adherents of the exiled Stuarts—James II., (1633-1701) and his son and two grandsons, James Francis Edward, the Chevalier de St. George (1688-1766), Charles Edward (1720-88), and Henry Benedict, Cardinal York (1725-1807). Those adherents were recruited from the Catholics, the Nonjurors, the High Churchmen and Tories generally, discontented and place-seeking Whigs, the Episcopalians and Highlanders of Scotland and the great body of the Irish people.

The Independents or Puritans in the reign of Charles I, were called "Roundheads." The royalists were nicknamed "The Cavaliers." The former wore their hair short, and dressed with great simplicity; the latter wore their hair flowing over their shoulders, and dressed showily and expensively. The two came into collision about the expulsion of the bishops from the House of Lords. The Roundheads insisted on their expulsion, and the severance of the clergy from all secular and state offices. It was in this brawl that the two parties gave each other the nicknames of Roundheads and Cavaliers.

The Doomsday Book, or "Domesday Book" (1085-1086), was a statistical survey of that part of England which was under the sway of William the Conqueror. So called, probably, because it was of authority in all dooms, *i.e.*, judgments in disputed questions which afterwards arose on matters contained therein. It was anciently known as the "Liber de Wintonia" (Book of Winchester), because at one time it was preserved in the royal treasury of that city under three locks and keys. It was printed and published in 1783 in two folio volumes. In 1816 two supplementary volumes were published.

The "Ça ira" ("It will go on!")was a popular song which arose in the fever of the French Revolution. It receives its name from its refrain:

Ah! ça ira, ça ira, ça ira!
Les aristocrates á la lanterne!

Like the *Marseillaise*, the *Carmagnole* and the *Chant du Départ* it became a French national song, and was styled the *Carillon National*. The words, which are worthless rubbish enough, were due to a street singer named Ladré; the melody to Bécourt, a stage-drummer. The song was prohibited by the Directory in 1797.

In England there were anciently two ordeals—one of water and the other of fire. The water ordeal was for the laity, and the fire ordeal for the nobility. If a noble was accused of a crime, he or his deputy was tried by ordeal thus: He had either to hold in his hand a piece of red-hot iron, or had to walk blindfold and barefoot over nine red-hot ploughshares laid lengthwise at unequal distances. If he passed the ordeal unhurt, he was declared innocent; if not, he was accounted guilty. This method of punishment arose from the notion that "God would defend the right," even by miracle, if needs be.

Guillotine, the instrument of decapitation introduced during the French Revolution by the Convention, and named after its supposed inventor, Joseph Ignace Guillotin, a physician, who, however, was only the person who first proposed its adoption. It was erected and first employed to execute a highwayman on the Place de Grève, Paris, 25th April, 1792. It is composed of two upright posts, grooved on the inside, and connected at the top by a cross-beam. In these grooves a sharp iron blade, having its edge cut obliquely, descends by its own weight on the neck of the victim, who is bound to a board laid below.

Conspicuous among diplomatic assemblies was the Berlin Congress (1878), consisting of the representatives of the six great powers and Turkey, who met to discuss the Eastern question arising out of the Treaty of San Stefano previously made between Russia and Turkey. The Berlin Congress resulted in the signing of the Berlin Treaty. Representatives of the various countries besides the resident ambassadors: England, Lord Beaconsfield and the Marquis of Salisbury; Germany, Fürst Bismarck (president); Austria, Count Andrassy; France, M. Waddington; Russia, Prince Gortschakoff; Italy, Count Corti; Turkey, Caratheodori Pasha.

The "Triple Alliance" is the name by which various treaties are known: (1) A treaty concluded in 1668 at the Hague between England, Holland, and Sweden, having for its object the protection of the Spanish Netherlands and the checking of the conquests of Louis XIV (2) An alliance concluded in 1717 between Britain, Prance, and Holland against Spain. (3) Between Britain, Russia, and Austria in 1795. (4) Between Germany, Austria, and Italy, formed and confirmed between 1883 and 1887. This superseded the "alliance of the three emperors" (*Dreikaiserbund*) between William I. of Germany, Francis Joseph of Austria, and Alexander II. of Russia, 1872–84.

Among the Persians, the usual mode of punishment is the bastinado, from which men of the highest rank are not exempt. It is inflicted with very great severity, frequently so as to render the sufferer almost a cripple for life. The victim is thrown upon his face, each foot is passed through a loop of strong cord attached to a pole, which is raised horizontally by men, who, twisting it around, tighten the ropes and render the feet immovable. Two executioners then strike the soles alternately with switches of the pomegranate tree, well steeped in water to render them supple. A store of these switches is generally ready for use in the pond which adjoins the courtyards of the houses of the great. The punishment frequently lasts an hour, or until the unfortunate victim faints from pain.

The Iron Crown of Lombardy is not an iron crown, but a magnificent gold diadem, containing a narrow iron band about three-eighths of an inch broad, and one-tenth of an inch in thickness. This band was made out of a nail given to Constantine by his mother, and said to be one of the nails used in the crucifixion. The outer circlet of the crown is of beaten gold, set with large rubies, emeralds and sapphires, and the iron band is within this circlet. The first Lombard king crowned with it was Agilulph, at Milan, in 591. Charlemagne was crowned with it in 774; Friederich III., in 1452; Karl V., in 1530; and Napoleon I., May 23, 1805, crowned himself with it as "King of Italy" in Milan Cathedral. It was given up to Victor Emmanuel on the conclusion of peace with Austria in 1866. The motto on the crown is "God has given it me; beware who touches it."

Filibuster is a corrupt spelling of the French *flibustier*, called in English a buccaneer. Filibusters were piratical seamen, resolved to force their way into the New World, jealously guarded by the Spanish. The most famous were Morgan (a Welshman), who took Panama in 1670; Pierre Legrande, of Dieppe. who, with twenty-eight men, took the ship of a Spanish admiral; Nau l'Olonnais, Michael le Basque, who made themselves masters of Vera Cruz in 1683; and Monbars the Exterminator, who, in 1683, took Vera Cruz. After the accession of William III. the French flibustiers and the English buccaneers were in deadly antagonism; but after the Treaty of Ryswick, in 1697, the piratical expeditions were put an end to.

The dancing mania is a form of epidemic disorder allied to hysteria, and evidently the result of imitative emotions, acting upon susceptible subjects, under the influence of a craving for sympathy or notoriety. There is little doubt that imposture entered to a considerable extent into all the epidemic forms of the dancing mania, which indeed were usually attended and followed by consequences that showed but too clearly the presence of impure motives; but there is also evidence that in many cases the convulsive movements were really beyond the control of the will, whatever may have been the original character of the motives that prompted them. Epidemics of this sort were common in Germany during the middle ages.

The Magna Charta was the great charter or document, founded mainly upon earlier Saxon charters, which the English barons compelled King John to sign at Runnymede (June 15, 1215). The most important provisions are: (1) no scutage or aid shall be raised, except in the case of the king's captivity, the knighting of his eldest son, or the marriage of his eldest daughter, except by the general council of the kingdom; (2) no freeman shall be imprisoned or disseised, outlawed or proceeded against other than by the legal judgment of his peers, or by the law of the land: (3) that right or justice shall not be sold, delayed or denied to any; (4) that the civil court shall be stationary, and not follow the king's person. Other provisions were directed against the abuse of the power of the king as lord paramount, the tyrrany of the forest laws, and grievances connected with feudal tenure. The Charter of Forests was granted at the same time. Both documents have been confirmed by Act of Parliament thirty-two times.

We give the name of autocracy (Gr., "sole mastery," "ruling by one's self") to that form of government in which the sovereign unites in himself the legislative and the executive powers of the state, and thus rules uncontrolled. Such a sovereign is therefore called an autocrat. Nearly all eastern governments are of this form. Among European rulers, the emperor of Russia alone bears the title of Autocrat, the name indicating his freedom from constitutional restraint of every kind. Such is the theory or principle of an autocracy, but it should be remembered that even the most rigorous autocrat must in practice have regard to the feelings and opinions of those about him. There are real though not formal checks. In autocratic states, palace or court revolutions are not infrequent. This has been a marked feature of Russian history, especially in the eighteenth century. These revolutions often result in the deposition and assassination of the sovereign. In point of fact, the peculiar feature of an autocracy is the absence of regular and constitutional limits; it is a strong form of "personal rule."

The Girondins, in English "The Girondists," were the pure republican party in the National Assembly and National Convention of the first French Revolution. So called because it consisted mainly of the deputies of the Gironde. This party was distinguished for its oratory, and for a time dominated the assembly; but, horrified at the September massacres, they condemned the Reign of Terror, and tried to bring in more moderate measures. This drew upon them the hatred of the demagogues, and on May 31, 1793, some twenty-nine of the Girondists were arrested at the instigation of Robespierre, and on October 31 twenty of them were guillotined, amongst whom were Brissot, Gensonné, Vergniaud, Ducos and Sillery. Valazé stabbed himself while he stood in the dock.

The Diamond Necklace was presented through Madame de Lamotte by Cardinal de la Rohan, as he supposed, to Marie Antoinette. It was a swindling transaction of the Countess de Lamotte. The Cardinal de Rohan, a profligate churchman, entertained a love passion for the queen, and the Countess de Lamotte induced him to purchase for $425,000, a diamond necklace, made for Madame Dubarry, and present it to the queen. The cardinal handed the necklace to the countess, and when the time of payment arrived Boehmer, the jeweler, sent his bill into the queen, Marie Antoinette denied all knowledge of the matter, and in the trial which ensued it was proved that the countess had sold the necklace to an English jeweler and kept the money. The trial lasted nine months, and created immense scandal.

The Falk Laws, 1873, were so called from Dr. Falk, who insisted on the compulsory education of the clergy of Prussia. The laws are four in number: (1) The first was directed against the abuse of ecclesiastical discipline for political purposes, such as "boycotting," excommunication, and anathemas; (2) the next regulated the effect of secession from the Church on the obligation to meet certain taxes; (3) the third law was directed at the evasions by Roman Catholics of state education incumbent on all Germans; and (4) abolished the legality of papal tribunals, recognizing the judgments of the German ecclesiastical courts as the only authority on Church matters. In 1874 these four laws were supplemented by others to ensure more perfect obedience. Dr. Adalbert Falk was appointed by Prince Bismarck "Minister of Public Worship," 22 January, 1872. In 1872 Prince Bismarck carried through the Prussian Houses a bill to transfer the control of primary education from the Church to the State authorities.

Peine Forte et Dure, the "strong and sore torture," is a species of torture formerly applied by the law of England to those who, on being arraigned for felony, refused to plead, and stood mute, or who were guilty of equivalent contumacy. In the reign of Henry IV. it had become the practice to load the offender with iron weights, and thus press him to death; and till nearly the middle of the eighteenth century pressing to death in this horrible manner was the regular and lawful mode of punishing persons who stood mute on their arraignment for felony. As late as 1741 a person is said to have been pressed to death at the Cambridge assizes, the tying of his thumbs having been first tried without effect. A statute of 1772 virtually abolished the *peine forte et dure*, by enacting that any person who shall stand mute when arraigned for felony or piracy shall be convicted, and have the same judgment and execution awarded against him as if he had been convicted by verdict or confession. A later statute (1828) made standing mute equal to a plea of "not guilty."

The phrase "freedom of the city" is thus explained. In olden times each trade in a European city formed a close corporation, and no person could carry on business without belonging to the particular guild or association of those in the same trade. As a rule, a man, to become a member of a guild, had to serve seven years as an apprentice, several years as a journeyman and finally he was admitted to the craft, became a master and gained the freedom of his trade. As a special honor, the mayor of the town, with the heads of the guild, would confer the freedom of the city upon a distinguished guest. It was purely an honor. The guild system never was established here as abroad; but as the conferring of the freedom of the city was the highest honor which a city, as a city, could bestow, we have retained the custom of giving that freedom from time to time.

The great result of the Berlin Congress was the Treaty of Berlin (signed July 12, ratified August 3, 1878). Its *principal articles* constituted the autonomous principality of Bulgaria and the new province of Eastern Roumelia; ceded certain parts of Armenia to Persia and Russia; secured the independence of Servia, Roumania and Montenegro; transferred Herzegovina and Bosnia to Austrian administration and occupation; retrocession to Russia of Bessarabia, Batoum (made a free port), Kars and Ardahan; Alasgird and Bayazid restored to Turkey, which undertook certain legal and religious reforms in Crete and its other dependencies. Greece also obtained an accesson of territory. The treaties of London and of Paris, when not modified by this treaty, to be maintained. England, by a separate agreement previously made with Turkey, obtained the administration of Cyprus.

The Star-chamber, a tribunal which met in the old council chamber of the palace of Westminster, and is said to have got its name from the roof of that apartment being decorated with gilt stars, or because in it "starres" or Jewish bonds had been kept. It is supposed to have originated in early times out of the exercise of jurisdiction by the king's council, whose powers in this respect had greatly declined when in 1487 Henry VII., anxious to repress the indolence and illegal exertions of powerful landowners, revived and remodelled them, or, according to some investigators, instituted what was practically an entirely new tribunal. The statute conferred on the Chancellor, the Treasurer and the Keeper of the Privy Seal, with the assistance of a bishop and a temporal Lord of the Council, Chief justices, or two other justices in their absence, a jurisdiction to punish, without a jury, the misdemeanors of sheriffs and juries, as well as riots and unlawful assemblies. Henry VIII. added to the other members of the court the President of the Council, and ultimately all the privy-councillors.

The rack, an instrument of torture, used for extracting confessions from actual or suspected criminals, consisted of an oblong frame of wood, with a windlass arrangement at each end, to which the sufferer was bound by cords attached to his arms and legs. The unfortunate being was then stretched or pulled till he made confession, or till his limbs were dislocated. The rack was known to the Romans in Cicero's time, and in the first and second centuries A.D. was applied to the early Christians. According to Coke, it was introduced into England by the Duke of Exeter, Constable of the Tower in 1447, whence it came to be called the "Duke of Exeter's daughter." Its use first became common in the time of Henry VIII., but could only take place by warrant of council, or under the sign-

manual. Under Elizabeth it was in almost constant use. In 1628, on the murder by Felton of the Duke of Buckingham, it being proposed by Charles I. to put the assassin to the rack, in order that he might discover his accomplices, the judges resisted the proceedings as contrary to the law of England. In various countries of Europe the rack has been much used both by the civil authorities in cases of traitors and conspirators, and by the Inquisition to extort a recantation of heresy. It is no longer in use in any part of the civilized world.

The commune is the unit or lowest division in the administration of France, corresponding in the rural districts to our township, and in towns to a municipality. The rising of the Commune at Paris in 1871, and which should not be confounded with communism, was a revolutionary assertion of the autonomy of Paris, that is, of the right of self-government through its commune or municipality. The theory of the rising was that every commune should have a real autonomy, the central government being merely a federation of communes. The movement was based on discontent at Paris, where the people found themselves in possession of arms after the siege by the Germans. The rising began on the 18th March, 1871, and was only suppressed ten weeks later after long, bloody fighting between the forces of the Commune and a large army of the central government; 6,500 Communists having fallen during 20-30th May, and 38,578 been taking prisoners.

Wat Tyler's insurrection occurred November 5, 1380. A peasant's revolt, immediately due to the imposition of a poll-tax on all persons above fifteen. Almost the whole of the peasantry of the southern and eastern counties of England rose in arms, murdering and plundering, under the leadership of Wat Tyler, said to have been a soldier in the French wars. On June 12, 1381, they gathered on Blackheath. On June 14, Richard II., then a lad of fifteen, met the Essex contingent at Mile End, and, promising the abolition of villenage, induced them to return home. On June 15, he met the Kentish men at Smithfield, and in the parley Wat Tyler was killed by William Walworth, mayor of London, and others. The peasants were about to avenge his death, when Richard, with great presence of mind, rode forward alone, and induced them to follow him to Islington, when, a body of troops coming to the king's aid, and Richard being profuse of promises, they dispersed.

THE FIRST FRENCH REVOLUTION.

ITS CHIEF LEADERS:

Comte de Mirabeau, 1789–1791.
Danton, from the death of Mirabeau to 1793.
Robespierre, from June, 1793, to July 27, 1794.
Next to these three were St. Just, Couthon, Marat, Carrier, Hèbert, Santerre, Camille Desmoulins, Roland and his wife, Brissot, Barnave, Seyès, Barras, Tallien, etc.

ITS GREAT DAYS:

1789. June 17. The *Tiers Etat* constituted itself into the "National Assembly"; June 20, the day of the *Jeu de Paume*, when the Assembly took an oath not to separate till it had given France a constitution; July 14, Storming of the Bastille: October 5, 6, the King and National Assembly transferred from Versailles to Paris. This closed the ancient *régime* of the court.
1791. June 20, 21. Flight and capture of the king, queen, and royal family.
1792. June 20, attack on the Tuileries by Santerre; August 10, attack on the Tuileries and downfall of the monarchy; September 2, 3, 4, massacre of the state prisoners.
1793. January 21, Louis XVI guillotined: May 31, commencement of the Reign of Terror; June 2, the Girondists proscribed: October 16, Marie Antoinette guillotined; October 31, the Girondists guillotined.
1794. April 5, downfall of Danton; July 27, downfall of Robespierre.

MODES OF EXECUTING CRIMINALS.

COUNTRY.	MODE.	PUBLICITY.
Austria	Gallows	Public.
Bavaria	Guillotine	Private.
Belgium	Guillotine	Public.
Brunswick	Ax	Private.
China	Sword or cord	Public.
Denmark	Guillotine	Public.
Ecuador	Musket	Public.
France	Guillotine	Public.
Great Britain	Gallows	Private.
Hanover	Guillotine	Private.
Netherlands	Gallows	Public.
Oldenberg	Musket	Public.
Portugal	Gallows	Public.
Prussia	Sword	Private.
Russia	Musket, gallows, or sword	Public.
Saxony	Guillotine	Private.
Spain	Garrote	Public.
Switzerland—		
Fifteen cantons	Sword	Public.
Two cantons	Guillotine	Public.
Two cantons	Guillotine	Private.
United States (other than New York)	Gallows	Mostly Private.
New York	Electricity	Private.

MONARCHS WHO RETIRED FROM BUSINESS.

The following are the names of European monarchs who have abdicated:

Amadeus I. (duke of Aosta) Spain	1873
Charles IV. of Spain (forced)	1808
Charles V. of Spain and Germany	1556
Charles X. of France (forced)	1830
Charles Albert of Sardinia (forced)	1849
Charles Emmanuel of Sardinia	1802
Christina of Sweden	1654
Diocletian and Maximian	305, 306
Felipe V. of Spain	1724
Francis II. of the Two Sicilies (forced)	1860
James II. of England (forced)	1689
Louis Bonaparte of Holland	1810
Louis Philippe of France (forced)	1848
Ludwig of Bavaria (forced)	1848
Matilda (Lady of England)	1154
Milan of Servia	1889
Napoleon I. of France (forced)	1814
Napoleon III. of France (forced)	1870
Otho of Greece (forced)	1863
Pedro II. of Brazil (forced)	1889
Poniatowski of Poland (forced)	1795
Richard II. of England (forced)	1399
Stanislaus Leszczinski (forced)	1735
Victor Amadeus of Sardinia	1730
Victor Emmanuel	1819

Several were dethroned without even the mocking show of abdication, like Edward II. of England (1327); Henry VI. of England (1471); etc.

FATHERS OF THEIR COUNTRY.

Cicero was called Father of his Country by the Roman senate (B.C. 106-43). Julius Cæsar was so called after quelling the insurrection in Spain (B.C. 100-43). Augustus Cæsar was called *Pater atque Princeps* (B.C. 63, 31-14). Cosmo de Medici (1389-1464). George Washington, defender and paternal counsellor of the American States (1732-1799). Andrea Doreă is so called on the base of his statue in Genoa (1468-1560). Andronicus Palæologus II. assumed the title (1260-1332). See also *Chron.* iv. 14.

HISTORY IN RHYME.

The following are given as helpful mnemonic verses:

PRESIDENTS OF THE UNITED STATES.

First stands the lofty Washington,
That noble, great immortal one.
The elder Adams next we see,
And Jefferson comes number three.
The fourth is Madison, you know,
The fifth one on the list, Monroe.
The sixth an Adams comes again,
And Jackson seventh in the train,
Van Buren eighth upon the line,
And Harrison counts number nine.
The tenth is Tyler, in his turn,
And Polk the eleventh as we learn.
The twelfth is Taylor that appears,
The thirteenth Fillmore fills his years.
Then Pierce comes fourteenth into view,
Buchanan is the fifteenth due.
Now Lincoln comes two terms to fill,
But God o'errules the people's will,
And Johnson fills the appointed time,
Cut short by an assassin's crime.
Next Grant assumes the lofty seat,
The man who never knew defeat.
Two terms to him; then Hayes succeeds,
And quietly the nation leads.
Garfield comes next, the people's choice;
But soon ascends a mourning voice
From every hamlet in the land.
A brutal wretch with murderous hand
Strikes low the country's chosen chief,
And anxious millions, plunged in grief,
Implore in vain Almighty aid,
That death's rude hand might yet be stayed.
Kind Arthur's term was then begun,
Which made the number twenty-one.
Stout Cleveland next the honors won
And then the second Harrison,
Until the nation's voice again
Called Cleveland as its man of men;
The twenty-fourth in order he—
All champions brave of Liberty.

Sovereigns of England since the Norman conquest:

Two Williams, Henry, Stephen, Henry, Dick,
John, Hal, three Neds, Richard and three Hals quick,
Two Edwards, Richard, two Harrys and a Ned,
Mary, Bess, James and Charles who lost his head,
Charles, James, Will, Ann, four Georges and a Bill,
And Queen Victoria who is reigning still.

THE CHAMP DE MARS.

The Champ de Mars, or "Field of March," was a grand general assembly of Frank warriors, held from time to time in Gaul from the fifth century till the time of Charles le Chauve (877), when all trace of them disappears. The objects of these conventions were twofold: (1) that of military reviews, in which the freemen came to pay homage to their chief and bring their annual gifts; and (2) consultative deliberations upon what expeditions should be made, what should be done for the defence of the nation and what laws should be passed for the better government of the state. From 755 these assemblies were held in May. Napoleon I. announced a gathering to be held in the great plain, called the Champ de Mars of Paris, on May 26; but it was not held till June 1, 1815. The object was to proclaim *L'Acte additionel aux constitutions de l'Empire.*

ORIGIN OF SOME 'ISMS.

SOCIALISM was primarily a system for the regulation of labor by co-operation without competition. Louis Blanc was the father of the system, and his "Organisation du Travail" was published in 1840. In this book he denounces the plan of "individualism," and advocates "solidarity," in which each workman is to be paid according to his need—a bachelor two francs a day, a married man two and one-half and a man with a family three francs. In 1848 national workshops were tried in Paris on the Louis Blanc principle. Government was the employer of labor, and private enterprise was abolished as far as possible. It was soon found that the national workshops were overcrowded, work was ill-done, idle hands multiplied, and profitless work had to be invented to keep the men out of mischief. Some 1,500 tailors were set to work in the Hôtel Clichy at two francs a day, but the scheme was a total failure.

Plato's "Republic" is an ideal communism. Minos and Lycurgus were communists. The early Christians had "all things in common," but the notion of government being the sole employer of labor, and paying each, not according to the work done, but according to individual necessity, was left to the device of Louis Blanc.

Bellamy's novel entitled "Looking Backward" is based somewhat on the same idea.

COMMUNISM is a scheme for associating men and women together without recourse to the laws of social and political economy usually resorted to. The representatives of communism are Robert Owen, St. Simon, Fourier, Proudhon and Enfantin.

(1) Owen published his scheme in 1813, and tried it in 1825 at Orbiston, in Lanarkshire. This scheme failed, and in 1843 he opened his "Harmony Hall" in Hampshire, but this also was a failure.

(2) St. Simon established a corporate society at Menilmontant, but Louis Philippe charged it with immorality and irreligion. The leaders were imprisoned and the commune dissolved.

(3) Fourier established his "phalanstery" at Rambouillet, but it proved a total failure.

(4) Proudhon is noted for his axiom, "La propriété, c'est le vol," 1848, and for his *Banque du Peuple*, 1849, which had for its object the suppression of capital. It was closed by authority, and Proudhon fled to Geneva.

(5) Enfantin, a partisan of St. Simon, advocated the abolition of marriage ties, and was prosecuted on the grounds of public decency.

FOURIERISM was the social system devised by Charles Fourier. He would divide men into groups of 400 families, and these groups into series, and these series into phalanxes. A single group he would place under one immense roof, and there should be supplied every appliance of industry and art. No army would be required, no wars could ever break out, as all the world would be one great family.

SIMONIANISM was the school of the Industrialists, founded in 1825 by St. Simon for the amelioration of the working classes, perverted after his death into a communistic society, advocating the aristocracy of toil, the perfect equality of man, community of property and the abolition of inheritance and marriage. Abolished by law in 1833.

MYSTIC LETTERS AND NUMBERS.

Figures mystical and awful . . .
Songs of war and songs of hunting,
Songs of medicine and of magic,
All were written in these figures,
For each figure had its meaning,
Each its separate song recorded.
—LONGFELLOW.

SUNDRY ODD PICKINGS.

Noah had three sons.

Job had three friends.

Lightning is three-forked.

The "Glorious Fourth" means July 4, 1776.

Hesiod said the half is more than the whole.

Jonah remained for three days in the whale's belly.

The Prince of Wales' crest consists of three feathers.

There were three patriarchs, Abraham, Isaac and Jacob.

Barbarossa changes position in his sleep every seven years.

Charlemagne starts in his chair from sleep every seven years.

Olaf Redbeard, of Sweden, uncloses his eyes every seven years.

Three companions of Daniel were thrown into the fiery furnace.

Five is conspicuous in man—five fingers, five senses, five members.

Ogier the Dane stamps his iron mace on the floor every seven years.

The Five Kings of France was a term applied to the Directorate, 1795.

The "City of Forty Times Forty Churches" is a name bestowed on Moscow.

Seven becomes sacred as it is composed of two good numbers, three and four.

In France, Belgium, Holland and Italy the national standards have three colors.

The melancholy Jacques' disquisition on "the seven ages of man" is well known.

The twenty-first verse of the seventh chapter of Ezra contains all the letters of the alphabet except "j," which originally was the consonantal form of "i."

"Barry Cornwall, Poet," is an anagrammatic pseudonym for Bryan Waller Proctor.

For three days Daniel remained in the lions' den because he prayed three times a day.

Some scientists assert that there is a complete change in the human body every seven years.

The saying "six thrice or three dice," sprang from the fact that aces were callod dice, and didn't count.

There were seven great wonders of the world in classic times. They are described elsewhere in this volume.

Six has for its symbol two equilateral triangles placed base to base, representative of equilibrium and peace.

Placentius, a sixteenth century Dominican, wrote a Latin poem of 253 stanzas, every word of which begins with P.

"Get nymph; quiz sad brows; fix luck," containing all the letters of the alphabet, is capital advice to a young man.

The alphabet is inexhaustible in its possibilities. Some one calculates 620,448,401,733,239,439,369,000 transpositions.

In Alchemy the Sun is gold, the Moon silver, Mars iron, Mercury quicksilver, Saturn lead, Jupiter tin and Venus copper.

An Englishman, wishing to revile America, has been noted as speaking, "The 'ideous Hamerican 'abit of habusing haitch."

"The 'orn of the 'unter is 'eard on the 'ill" is a cockney version of the line from Mrs. Crawford's "Kathleen Mavourneen."

Seven sciences composed the Trivium and Quadrivium, viz., grammar, rhetoric, and logic, music, arithmetic, geometry and astronomy.

Note the three in "fish, flesh and fowl;" "morning, noon and night;" "water, snow and ice;" "heaven, earth and hell;" "red, white and blue."

Among the Chinese, heaven is *odd*, earth is *even;* heaven is *round*, earth is *square*. The numbers 1, 3, 5, 7, 9, belong to *yang* ("heaven"); but 2, 4, 6, 8, 10, belong to *yin* ("earth").

The Nine Worthy Women were: (1) Minerva, (2) Semiramis, (3) Tomyris, (4) Jael, (5) Debŏrah, (6) Judith, (7) Britomart, (8) Elizabeth or Isabella of Aragon, (9) Johanna of Naples.

Jericho fell on the seventh day. To accomplish this seven priests with seven trumpets march around the city once a day, and on the seventh day seven times—and the walls fell.

> "Ha helephant heasily heats hat 'is hease
> Hunder humbrageous humbrella trees."
> —MOORE.

The seventy years' captivity of the Jews in Babylon, which lasted seventy years, began B.C. 584 and ended B.C. 515. They were carried into captivity by Nebuchadnezzar and released by Cyrus. This is also called "The Babylonish Captivity."

Ancient Rome, built on seven hills, surrounded by Servius Tullius with a line of fortifications, was called the seven-hilled city. The seven hills are the Pallatīnus, the Capitolīnus, the Quirinālis, the Cælius, the Aventīnus, the Viminālis, and Esquilīnus.

Seven times Christ spoke on the Cross: (1) "Father, forgive them, for they know not what they do;" (2) "To-day shalt thou be with Me in paradise;" (3) "Woman, behold thy son!" (4) "My God, My God, why hast Thou forsaken Me?" (5) "I thirst;" (6) "It is finished!" (7) "Father, into Thy hands I commend My spirit."

The ten numerations are cabalistic doctrine. Three are called the superior, and seven the inferior numerations. The three superior are the supreme diadem, wisdom and understanding. These existed from all eternity. The seven inferior numerations are mercy, severity or might, beauty, victory, glory, stability and sovereignty.

"The Three R's—reading, 'riting and 'rithmetic"—is the title of a toast given at a dinner in honor of the Board of Education by Sir Wm. Curtis, Bart., Lord Mayor of London, in 1795. In consequence of this toast the Lord Mayor has been handed down to posterity as an ignoramus, though those present recognized the jest clothed in the elisions.

One solution of Daniel's seventy weeks is to suppose it to begin with the decree of Darius given to Ezra B.C. 491, and the seventy weeks to mean seventy times seven years (*i.e.* four hundred and ninety), which would bring us to the birth of Christ, "when a finish was made to transgression, and an end put to sins by the reconciliation of the Messiah, the prince."

Our word alphabet is composed of the first two letters of the Greek alphabet, *Alpha* and *Beta*. These were adopted from the Phœnician *Aleph* and *Beth*, which mean respectively "ox" and "house"—referring no doubt to the shape of the letters—which show us the connection between the alphabet as we know it and the ancient cuneiform and hieroglyphic writing of Babylonia and Egypt.

Card-players who are continually bewailing their ill-luck of always receiving the same poor cards, will, perhaps, be reassured by knowing that the fifty-two cards, with thirteen to each of the four players, can be distributed in 53,644,737,756,488,792,839,237,440,000 different ways, so that there would still be a good stock of combinations to draw from, even if a man from Adam's time had devoted himself to no other occupation than that of playing at cards.

One gallon of water weighs ten pounds, so the number of gallons in the Pacific is over 200,000,000,000,000, an amount which would take more than 1,000,000 years to pass over the falls of Niagara. Yet, put into a sphere, the whole of the Pacific would only measure 726 miles across. The Atlantic could be contained bodily in the Pacific nearly three times. The number of cubic feet is 11,700,000,000,000,000,000, a number that would be ticked off by 1,000,000 clocks in 370,000 years.

Abracadabra is a magical word or formula constructed out of the letters of the alphabet, and supposed to be highly efficacious for the cure of agues and fevers. The letters were written so as to form a triangle, capable of being read many ways on a square piece of paper, which was folded or stitched into the form of a cross; worn as an amulet in the bosom for nine days, and ultimately thrown backward before sunrise into a stream running eastward. The adjoining is one way of arranging this mystic word.

A B R A C A D A B R A
A B R A C A D A B R
A B R A C A D A B
A B R A C A D A
A B R A C A D
A B R A C A
A B R A C
A B R A
A B R
A B
A

Writing is of two kinds — ideographic, in which signs represent ideas; and phonetic, in which signs represent sounds. Ideographic writing, which preceded phonetic writing, is illustrated by the picture-writing of the ancient Mexicans, and by the Chinese system of writing, which is strictly ideographic. The Phœnician and other Semitic nations derived their knowledge of writing from the Egyptians. The art was introduced from Phœnicia into Greece, and from Greece into Italy, whence it spread with the spread of Christianity.

The Jewish Sanhedrim, or national council, was constituted of a president called *Nasi*, a deputy, sub-deputy and seventy ordinary members. Their place of meeting was called *The Pavement*. The seventy sat in the form of a crescent, thirty-five on each side of the throne. In A.D. 32 the seventy were sent forth by Jesus to spread His mission. They were to go two by two, without purse, scrip or change of shoes, but were endowed with the power of working miracles. Seventy elders were appointed to assist Moses in the wilderness (Num. xi. 16, 17).

Seven Wise Men is the collective designation of a number of Greek sages, whose moral and social experience, according to the ancients, was embodied in certain brief aphorisms. Their names, as usually given, and their characteristic aphorisms are as follows: Solon of Athens—"Nothing in excess;" Thales of Miletus—"Suretyship brings ruin;" Pittacus of Mitylene—"Know thine opportunity;" Bias of Priene, in Caria—"Too many workers spoil the work." Chilon of Sparta—"Know thyself;" Cleobulus, tyrant of Lindus, in Rhodes—"Moderation is the chief good;" and Periander, tyrant of Corinth—"Forethought in all things."

Here is another of the curious ones: Multiply a number composed of the nine digits, 123,456,789, by 45, and the product is 5,555,555,505. Reverse the figures in the multiplier 54, and the product is 6,666,666,606. Reverse the multiplicand to 987,654,321), and multiply by 45, and the product is 44,444,444,445. Reverse the multiplier to 54, and the product is 53,333,333,334. The first and last figures are the multiplier. Use half the multiplier or 27, and the product is 26,666,666,667. The first and last figures are the multiplier. Reverse the figures of the multiplier to 72, and the product is 71,111,111,112, the first and last being the multiplier.

FRANCE'S FATAL THREE.

The fatal number to Rome has been six; and three has proved singularly fatal to France.

I. Take the kings. The third of any name has been uniformly either worthless or unlucky: Childebert III., Clotaire III., Clovis III., Dagobert III., and Thierry III., were *rois fainéants*.

Childeric III., the last king of France of the first race, was confined in a cloister that Pepin le Bref might reign in his stead.

Pepin le Bref was the *third* Pepin: (1) Pepin de Landen; (2) Pepin d'Héristal, his grandson, and (3) Pepin le Bref, grandson of Pepin d'Héristal, who was succeeded by the Carlovignian dynasty.

Charles III., le Simple, was wholly under the thumb of favorites, and after a most inglorious reign was poisoned by the Comte de Vermandois.

Henri III., le Mignon, "weaker than woman and worse than harlot" was assassinated by Jacques Clément.

Louis III., joint king with Carloman, reigned about a year and was killed by an accident at the age of twenty-two.

Philippe III., le Hardi, was singularly unfortunate, and singularly misnamed "The Bold." This tool of Labrosse went on a crusade, and brought home the dead bodies of five near relatives: his father, his wife, his son, his brother, and his brother-in-law. The "Sicilian Vespers" occurred in his reign. He died of an epidemic at Perpignan.

Napoleon III. lost his imperial crown at Sedan, and died in exile at Chiselhurst, in Kent.

II. The succession of three brothers has always proved fatal.

The *Capetian* dynasty terminated with the succession of three brothers: Louis X., Philippe V., and Charles IV. (sons of Philippe le Bel).

The *Valois* line came to an end by the succession of three brothers: François II., Charles IX., and Henri III. (sons of Henri II.).

The *Bourbon* dynasty terminated with the succession of three brothers: Louis XVI., Louis XVIII., and Charles X. (sons of Louis the Dauphin).

III. The monarchy of France was brought to an end by the third of these triplets.

The empire of France consisted of Napoleon I., Napoleon II., and Napoleon III.

DATES OF THE SECOND EMPIRE.

1. 1869, the last year of Napoleon's glory; the next year was that of his downfall. As a matter of curiosity, it may be observed that if the day of his birth, or the day of the empress' birth, or the date of the capitulation of Paris be added to that of the coronation of Napoleon III., the result always points to 1869. Thus he was crowned in 1852; he was born in 1808; the empress Eugénie was born 1826; the capitulation of Paris was 1871. Whence:

1869		1852		1852	coronation.
1		1		1	
8	birth of Napoleon.	8	birth of Eugenie.	8	capitulation of Paris.
0		2		7	
8		6		1	
1869		1869		1869	

2. 1870, the year of his downfall. By adding the numerical values of the birthdate either of Napoleon or Eugénie to the date of the marriage, we get their fatal year of 1870. Thus, Napoleon was born 1808; Eugénie, 1826; married, 1853.

1853		1853	year of marriage.
1		1	
8	birth of Napoleon.	8	birth of Eugénie.
0		2	
8		6	
1870		1870	

3. *Empereur.* The votes for the president to the emperor were 7,119,791; those against him were 1,119,000. If, now, the numbers 711979r/1119 be written on a piece of paper, and held up to the light, the reverse side will show the word *empereur*. (The dash is the dividing mark, and forms the long stroke of the "p.")

THE APOCALYPTIC NUMBER.

The mystical number 666, spoken of in the Book of Revelation (xiii. 18) is called the apocalyptic number. Among the Greeks and Hebrews the letters of the alphabet were used to denote numbers. Hence such

letters must be taken as will, when used as numbers, make up 666 (either in the Greek or Hebrew alphabet) as the letters of the name in question. The best solution of the riddle is "Neron Kesar," the Hebrew form of the Latin "Nero Cæsar." The vowels *e* and *a* are not expressed in the ancient Hebrew writing. The number represented by NeRON KeSaR would be 666, thus:

N R O N K S R
50 + 200 + 6 + 50 + 100 + 60 + 200 = 666.

Other interpretations were adopted in early times, as *Antichrist* and *Lateinos*, the latter being supposed to refer to the Roman empire, and even in more recent times being explained by Protestant controversialists of greater zeal than discretion, as a prophetic allusion to papal Rome.

THE FIVE WITS.

An old and curious standard of mentality is that which credits mankind with having "five wits:" common wit, imagination, fantasy, estimation, and memory.

1. *Common wit* is that inward sense which judges what the five senses simply discern: thus the eye sees, the nose smells, the ear hears, and so on, but it is "common wit" that informs the brain and passes judgment on the goodness or badness of these external matters.
2. *Imagination* works on the mind, causing it to realize what has been presented to it.
3. *Fantasy* energizes the mind to act in accordance with the judgment thus pronounced.
4. *Estimation* decides on all matters pertaining to time, space, locality, relation, and so on.
5. *Memory* enables the mind to retain the recollection of what has been imparted.

THE SACRED NUMBER.

Seven was frequently used as a mystical and symbolical number in the Bible, as well as among the principal nations of antiquity, the Persians, Indians, Egyptians, Greeks and Romans. The origin is doubtless astronomical, or rather astrological—viz. the observation of the seven planets and the phases of the moon, changing every seventh day. As instances of this number in the Old Testament, we find the Creation completed within seven days, whereof the seventh was a day of rest kept sacred. Every seventh year was sabbatical, and the seven times seventh year ushered in the jubilee year. The three *Regalim*, or Pilgrim festivals (Passover, Festival of Weeks, and Tabernacles), lasted seven days; and between the first and second of these feasts were counted seven weeks. The first day of the seventh month was a "Holy Convocation." The Levitical purifications lasted seven days, and the same space of time was allotted to the celebration of weddings and the mourning for the dead. In innumerable instances in the Old Testament and later Jewish writings the number is used as a kind of round number. In the Apocalypse we have the churches, candlesticks, seals, stars, trumpets, spirits, all to the number of seven, and the seven horns and seven eyes of the Lamb. The same number appears again either divided into half (3½ years, Rev. xiii. 5; xi. 3, xii. 6, etc.), or multiplied by ten—seventy Israelites go to Egypt, the exile lasts seventy years, there are seventy elders, and at a later period there are supposed to be seventy languages and seventy

nations upon earth. To go back to the earlier documents, we find in a similar way the dove sent out the second time seven days after her first mission, Pharaoh's dream shows him twice seven kine, twice seven ears of corn, etc.

The Seven Churches of Rev. i.-iii. are Ephesus, Smyrna, Pergamos, Thyatira, Sardis, Philadelphia and Laodicea.—The Seven Deadly Sins are pride, covetousness, lust, anger, gluttony, envy and sloth.—The Seven Principal virtues are faith, hope, charity, prudence, temperance, chastity and fortitude.—The Seven Gifts of the Holy Ghost are wisdom, understanding, counsel, ghostly strength or fortitude, knowledge, godli. ness and the fear of the Lord.

Among the Greeks the seven was sacred to Apollo and to Dionysus, who, according to Orphic legends, was torn into seven pieces; and it was particularly sacred in Eubœa, where the number was found to pervade, as it were, almost every sacred, private or domestic relation. On the many ancient speculations which connected the number seven with the human body and the phases of its gradual development and formation, its critical periods of sicknesses—partly still extant as superstitious notions—we cannot here dwell. The Pythagoreans made much of this number, giving it the name of Athene, Hermes, Hephaistos, Heracles, the Virgin unbegotten and unbegetting (*i.e.* not to be obtained by multiplication), Dionysus, Rex, etc. Many usages show the importance attached to this number in the eyes not only of ancient but even of our own times, and it is hardly necessary to add that the same recurrence is found in the folklore of every race.

Hippocrătês (B.C. 460–357) divided the life of man into seven ages, a division adopted by Shakspeare.

The Egyptian priests enjoined rest on the seventh day, because it was held to be a *dies infaustus*. In Egyptian astronomy there were seven planets, and hence seven days in the week, each day ruled by its own special planet. The people of Peru had also a seven-day week.

The Persians and Mexicans have a tradition of a flood from which seven persons saved themselves in a cave, and by whom the world was subsequently repeopled.

The Seven Champions of Christendom are St. George for England, St. Andrew for Scotland, St. Patrick for Ireland, St. David for Wales, St. Denis for France, St. James for Spain, St. Anthony for Italy.

LESSONS OF THE LETTERS.

A popular magazine writer professes to have discovered that our lives would surely be happy, as well as useful and meritorious, if we were always careful to avoid:

The incessant round of idle pleasures, which make life so—M. T.

That undisciplined spirit, which carries everything to—X. S.

Fixing our hearts upon aught that can know—D. K.

Looking upon the possessions of others with—N. V.

Exulting over a fallen—N. M. E.

Shirking all the difficult duties of our state, and fulfilling only those that are—E. Z.

A haughty, repellant manner, which may be alphabetically described as—I. C.

Encumbering our souls with faults which we shall, either here or hereafter, be required to—X. P. VIII.

That pride which leads us to refuse a work in which we are not sure we shall—X. L.

That porcupine susceptibility which is irritated at—O.

Discussing topics that cause the strings of social life to—G. R.

Thinking that acquaintances have no good qualities, because at first sight we don't—C. N. E.

Being gloomy sometimes as though life were an—L. E. G.

If our readers cannot make out all these maxims we confess we cannot—C. Y.

A FEW CURIOUS ANAGRAMS.

The anagram is a word or words formed by the transposition of the letters of a sentence or word: *e.g.*, *live* becomes the Anagram *evil*. Anagrams were in use among the ancient Greeks, Romans, etc., and many that have been recorded are curiously suggestive. Following are a few of the historic anagrams:

CHARLES JAMES STUART, (James I.) *Claims Arthur's Seat.*
DAME ELEANOR DAVIES (prophetess in the reign of Charles I.) *Never so mad a ladie.*
HORATIO NELSON. *Honor est a Nilo.*
MARIE TOUCHET (mistress of Charles IX.). *Je charme tout* (made by Henri IV.)
Pilate's question, QUID EST VERITAS? *Est vir qui adest.*
SIR ROGER CHARLES DOUGHTY TICHBORNE, BARONET. *You horrid butcher, Orton biggest rascal here.*
DOUGLAS JERROLD: *Sure, a droll dog.*
THOMAS MOORE: *Homo amor est.*
EDGAR ALLAN POE: *A long peal, read.*
JOHN RUSKIN: *No ink rush.*
UNITED STATES: *In te Deus stat.*
JAMES WATT: *Wait, steam.*
WILLIAM EWART GLADSTONE: *A man to wield great wills.*
WILLIAM SHAKESPEARE: *I ask me has Will a peer.*

THREE FOR A FINISH.

The line of kings in England never exceeds three reigns without interruption or catastrophe.

WILLIAM I., II., HENRY I.—A usurper, Stephen.
HENRY II., RICHARD I.—A usurper, John.
HENRY III., EDWARD I.—Edward II. murdered.
EDWARD III.—Richard II. deposed.
HENRY IV., V., VI.—Line of Lancaster changed.
EDWARD IV., V., RICHARD III.—Dynasty changed.
HENRY VII., VIII., EDWARD VI.—Lady Jane Grey.
MARY, ELIZABETH.—Dynasty changed.
JAMES I.—Charles I. beheaded.
CHARLES II.—James II. dethroned.
WILLIAM III., ANNE.—Dynasty changed.
GEORGE I., II., III.—Regency.
GEORGE IV., WILLIAM IV., VICTORIA.—Indirect successions.

Except in one case, that of John, England has never had a great-grandchild as sovereign in direct descent.

SEVEN SLEEPERS.

The Seven Sleepers were the heroes of a celebrated legend, which is first related in the West by Gregory of Tours in the close of the sixth century, but the date of which is assigned to the third century, and at

the persecution of the Christians under Decius. According to the story, during the flight of the Christians from the persecution, seven Christians of Ephesus took refuge in a cave near the city, where they were discovered by their pursuers, who walled up the entrance in order to starve them to death. They fell instead into a preternatural sleep, in which they lay for nearly two hundred years. This is supposed to have taken place in 250 or 251; and it was not till the reign of Theodosius II. (447) that they awoke. They imagined that their sleep had been but of a single night; and one of the seven went secretly into the city to purchase provisions, and he was amazed to see the cross erected on the churches and other buildings. Offering a coin of Decius in a baker's shop he was arrested, his startling story not being believed until he guided the citizens to the cavern where he had left his comrades. The emperor heard from their lips enough to convince him of the life beyond the grave of the dead, whereupon they sank again to sleep till the resurrection. Gregory explains that his story is of Syrian origin—it is widely current in the East, and was adopted by Mahommed, who even admits their dog Kitmer also into Paradise. The Roman Catholic Church holds their festival on June 27.

"I."

I am not in youth, nor in manhood or age,
But in infancy ever am known,
I'm a stranger alike to the fool and the sage,
And though I'm distinguished on history's page,
I always am greatest alone.

I'm not in the earth, nor the sun, nor the moon;
You may search all the sky, I'm not there:
In the morning and evening, though not in the noon,
You may plainly perceive me, for, like a balloon,
I am always suspended in air.

Though disease may possess me, and sickness, and pain,
I am never in sorrow or gloom,
Though in wit and in wisdom I equally reign,
I am the heart of all sin, and have long lived in vain,
Yet I ne'er shall be found in the tomb.

SOME "LUCKY" AND "UNLUCKY" NUMBERS.

Harold's day was October 14. It was his birthday, and also the day of his death. William the Conqueror was born on the same day, and, on October 14, 1066, won England by conquest.

October 7, Rienzi's foes yielded to his power.

7 months Rienzi reigned as tribune.

7 years he was absent in exile.

7 weeks of return saw him without an enemy (October 7).

7 was the number of the crowns the Roman convents and Roman council awarded him.

It is said that it is unlucky for thirteen persons to sit down to dinner at the same table, because one of the number will die before the year is out. This silly superstition is based on the "Last Supper," when Christ and His twelve disciples sat at meat together. Jesus, of course, was crucified, and Judas Iscariot hanged himself.

The 3rd September was considered by Oliver Cromwell to be his red-letter day. On 3rd September, 1650, he won the battle of Dunbar; on

3rd September, 1651, he won the battle of Worcester; and on 3rd September, 1658, he died. It is not, however, true that he was born on 3rd September, as many affirm, for his birthday was 25th April, 1599.

In British dynasties two has been an unlucky number; thus: Ethelred II. was forced to abdicate; Harold II. was slain at Hastings; William II. was shot in the New Forest; Henry II. had to fight for his crown, which was usurped by Stephen; Edward II. was murdered at Berkeley Castle; Richard II. was deposed; Charles II. was driven into exile; James II. was obliged to abdicate; George II. was worsted at Fontenoy and Lawfeld, was disgraced by General Braddock and Admiral Byng, and was troubled by Charles Edward, the Young Pretender.

"Five," says Pythagoras, "has peculiar force in expiations. It is everything. It stops the power of poisons, and is redoubted by evil spirits. Unity, or the *monad*, is Deity, or the first cause of all things—the *good* principle. Two, or the *dyad*, is the symbol of diversity—the *evil* principle. Three, or the *triad*, contains the mystery of mysteries, for everything is composed of three substances. It represents God, the soul of the world, and the spirit of man. Five is 2 + 3, or the combination of the first of the equals and the first of the unequals; hence also the combination of the good and evil powers of nature."

The number fourteen plays a very conspicuous part in French history, especially in the reigns of Henry IV. and Louis XIV. For example:

14th May, 1029, the *first* Henri was consecrated, and 14th May, 1610, the *last* Henri was assassinated.

14 letters compose the name of *Henri di Bourbon*, the 14th king of France and Navarre.

14th December, 1553, (14 *centuries*, 14 *decades and* 14 *years from the birth of Christ*), Henri IV. was born, and 1553 added together = 14.

14th May, 1554, Henri II. ordered the enlargement of the Rue de la Ferronnerie. This order was carried out, and 4 times 14 years later Henri IV. was assassinated there.

14th May, 1552, was the birth of Margaret de Valois, first wife of Henri IV.

14th May, 1588, the Parisians revolted against Henri III., under the leadership of Henri de Guise.

14th March, 1590, Henri IV. gained the battle of Ivry.

14th May, 1590, Henri IV. was repulsed from the faubourgs of Paris.

14th November, 1590, "The Sixteen" took oath to die rather than serve the Huguenot king, Henri IV.

14th November, 1592, the Paris *parlement* registered the papal bull which excluded Henri IV. from reigning.

14th December, 1599, the duke of Savoy was reconciled to Henri IV.

14th September, 1606, the dauphin (Louis XIII.), son of Henri IV., was baptized.

The second of the month was Louis Napoleon's day. It was also one of the days of his uncle, the other being the fifteenth.

The *coup d'état* was December 2; he was made emperor December 2, 1852; the Franco-Prussian war opened at Saarbrück, August 2, 1870; he surrendered his sword to William of Prussia September 2, 1870.

Napoleon I. was crowned December 2, 1804; and the victory of Austerlitz was December 2, 1805.

THE VOWELS.

We are little airy creatures,
All of different voice and features;
One of us in glass is set,
One of us you'll find in jet,
T'other you may see in tin,
And the fourth a box within,
If the fifth you should pursue,
It can never fly from you.

MASTERPIECES OF ALLITERATION.

The frequent recurrence of words beginning with the same letters is called alliteration. A good example of its use is to be found in that famous couplet of Churchill's:

> Who often, but without success, had prayed
> For *a*pt *a*lliteration's *a*rtful *a*id.

The Siege of Belgrade, claimed for Alaric A. Watts, is probably the best-known alliterative poem in the English language:

> An Austrian army, awfully arrayed,
> Boldly by battery, besieged Belgrade.
> Cossack commanders, cannonading come,
> Dealing destruction's devastating doom;
> Every endeavor, engineers essay
> For fame, for fortune, forming furious fray.
> Gaunt gunners grapple, giving gashes good
> Heaves high his head heroic hardihood.
> Ibraham, Islam, Ismael, imps in ill,
> Jostle John Jarovlitz, Jem, Joe, Jack, Jill;
> Kick kindling Kutusoff, king's kinsman kill;
> Labor low levels loftiest longest lines;
> Men march 'mid moles, 'mid mounds, 'mid murderous mines.
> Now nightfall's nigh, now needful nature nods.
> Opposed, opposing, overcoming odds.
> Poor peasants, partly purchased, partly pressed,
> Quite quaking, "Quarter! Quarter!" quickly quest.
> Reason returns, recalls redundant rage,
> Saves sinking soldiers, softens signiors sage.
> Truce, Turkey, truce! truce, treacherous Tartar train!
> Unwise, unjust, unmerciful Ukraine!
> Vanish, vile vengeance! vanish, victory vain!
> Wisdom wails war—wails warring words. What were
> Xerxes, Xantippê, Ximenês, Xavier?
> Yet yassy's youth, ye yield your youthful yest.
> Zealously, zanies, zealously zeal's zest.

Tusser has a poem on "Thriftiness," twelve lines in length, and in rhyme, every word of which begins with *t* (died 1580). Leon Placentius, a dominican, wrote a poem in Latin hexameters, called *Pugna Porcorum*, 253 stanzas long, every word of which begins with *p* (died 1548).

Here's another antique specimen:

> The thrifty that teacheth the thriving to thrive,
> Teach timely to traverse, the thing that thou 'trive,
> Transferring thy toiling, to timeliness taught,
> This teacheth thee temp'rance, to temper thy thought.
> Take Trusty (to trust to) that thinkest to thee.
> That trustily thriftiness, trowleth to thee.
> Then temper thy travell, to tarry the tide;
> This teacheth thee thriftiness, twenty times tryed.
> Take thankful thy talent, thank thankfully those
> That thriftily teacheth [*? teach thee*] thy time to transpose.
> Troth twice to be teached, teach twenty times ten,
> This trade that thou takest, take thrift to thee then.

EASY SUMS IN ARITHMETIC.

Take 15. Multiply that by itself, then multiply the product by itself and proceed until you have thus multiplied 15 products in turn.—It has been said that it will take twenty-five years to solve this problem.

"If a goose weighs ten pounds and half its own weight, what is the weight of the goose?"

"A snail climbing up a post twenty feet high ascends five feet every day and slips down four feet every night; how long will the snail take to reach the top of the post?"

'A wise man having a window one yard high and one yard wide, requiring more light, enlarged his window to twice its former size; yet the window was still only one yard high and one yard wide. How was this done?"

All the products of nine in the multiplication come to nine. Try it.

"Take any row of figures, and reversing their order, make a subtraction" of the latter from the former, "add up the digits of the remainder and the result will be nine."

HONORS TO FORTY.

The number forty is very prominent in Bible and Church history:

1. It rained forty days and forty nights in the Flood.—*Gen.* vii. 12.
2. Moses twice fasted for forty days and forty nights.—*Exod.* xxiv. 18, etc.
3. The spies sent to Canaan were forty days in searching the land.—*Num.* xiii. 35.
4. The Israelites wandered forty years in the wilderness.—*Ps.* xcv. 10.
5. Goliath defied the armies of Saul for forty days.—1 *Sam.* xvii. 16.
6. Elijah fasted forty days.—1 *Kings* xix. 8.
7. Ezekiel bore the iniquities of the house of Jacob forty days, a day for a year.
8. Jonah cried to the Ninevites, "Yet forty days, and Nineveh shall be overthrown." —*Jonah* iii. 4.
9. Jesus fasted and was tempted forty days in the wilderness.—*Matt.* iv. 2.
10. Jesus tarried on earth forty days after his resurrection.—*Acts* i. 3.
11. Jerusalem was destroyed by Titus forty years after the Ascension.
12. According to Church tradition, Jesus was forty hours in the tomb.
13. The Lenten Fast continues for forty days, from Ash Wednesday to Easter Sunday

And there are others.

"H."

'Twas whispered in heaven, 'twas muttered in hell,
And echo caught faintly the sound as it fell;
On the confines of earth 'twas permitted to rest,
And the depths of the ocean its presence confessed;
'Twill be found in the sphere when 'tis riven asunder,
Be seen in the lightning, and heard in the thunder.
'Twas allotted to man with his earliest breath,
It assists at his birth and attends him in death,
Presides o'er his happiness, honor, and health,
Is the prop of his house and the end of his wealth,
In the heaps of the miser 'tis hoarded with care,
But is sure to be lost in his prodigal heir.
It begins every hope, every wish it must bound,
It prays with the hermit, with monarchs is crowned;
Without it the soldier, the sailor, may roam,
But woe to the wretch who expels it from home.
In the whisper of conscience 'tis sure to be found,
Nor e'en in the whirlwind of passion is drowned;
'Twill soften the heart, but, though deaf to the ear,
It will make it acutely and instantly hear;
But in short, let it rest like a delicate flower.
Oh, breathe on it softly, it dies in an hour.

CURIOUS MISNOMERS.

Arabic figures were not invented by the Arabs, but by the early scholars of India.

Cleopatra's needles were not erected by that Queen, neither do they commemorate any event in her history. They were set up by Rameses the Great.

The Jerusalem artichoke has no connection whatever with the holy city of the Jews. It is a species of sunflower, and gets its name from girasole, one of the scientific names of that genus of plants.

The word "pen" means a feather and is from the Latin penna, a wing. Surely the expression "a steel pen" could be improved upon.

Galvanized iron is not galvanized at all, but is coated with zinc by being plunged into a bath of that metal and muriatic acid.

Pompey's pillar at Alexandria was neither erected by Pompey nor to his memory.

Common table salt is not a salt and has long since been excluded from the class of bodies denominated "salts."

Rice paper is not made from either rice or straw, but from a pithy plant called tungtsua, found in China, Corea and Japan.

Brazil grass neither comes from nor grows in Brazil. It is strips from a species of Cuban palm.

DESTINY OF THE STUARTS.

James III. was killed in flight near Bannockburn, 1488.

Mary Stuart was beheaded 1588 (New Style).

James II. of England was dethroned 1688.

Charles Edward died 1788.

*** James Stuart, the "Old Pretender," was born 1688, the very year that his father abdicated.

James Stuart, the famous architect, died 1788.

(Some affirm that Robert II., the first Stuart king, died 1388, the year of the great battle of Otterburn; but the death of this king is more usually fixed in the spring of 1390.)

THE LETTER M.

M is said to represent the human face without the two eyes. By adding these, we get O m O, the Latin *homo*, "man." Dantê, speaking of faces gaunt with starvation, says:

> Who reads the name
> For *man* upon his forehead, there the M
> Had traced most plainly.

This letter has been very curiously coupled with Napoleon I., and it is interesting to note its relation to Napoleon III.:

MACMAHON, duke of Magenta, his most distinguished marshal, and, after a few months, succeeded him as ruler of France (1873–1879).

MALAKOFF (*Duke of*), next to MacMahon his most distinguished marshal.

MARIA of Portugal was the lady his friends wanted him to marry, but he refused to do so.

MAXIMILIAN and Mexico, his evil stars (1864–1867).

MENSCHIKOFF was the Russian general defeated at the battle of the Alma (September 20, 1854).

MICHAUD, MIGNET, MICHELET and MERIMÉE were distinguished historians in the reign of Napoleon III.

MOLTKE was his destiny.

MONTHOLON was one of his companions in the escapade at Boulogne, and was condemned to imprisonment for twenty years.

MONTIJO (*Countess of*), his wife. Her name is Marie Eugénie, and his son was born in March; so was the son of Napoleon I.

MORNY, his greatest friend.

MAGENTA, a victory won by him (June 4, 1859).

MALAKOFF. Taking the Malakoff tower and the Mamelon-vert were the great exploits of the Crimean war (September 8, 1855).

MAMELON-VERT. (See above.)

MANTUA. He turned back before the walls of Mantua after the battle of the Mincio.

MARENGO. Here he planned his first battle of the Italian campaign, but it was not fought till after those of Montebello and Magenta

MARIGNANO. He drove the Austrians out of this place.

METZ. the "maiden fortress," was one of the most important sieges and losses to him in the Franco-Prussian war.

MILAN. He made his entrance into Milan, and drove the Austrians out of Marignano.
MINCIO (*The battle of the*), called also Solferino, a great victory. Having won this, he turned back at the walls of Mantua (June 24, 1859).
MONTEBELLO, a victory won by him (June, 1859).
*** The Mitrailleuse was to win him Prussia, but it lost him France.
MARCH. In this month his son was born; he was deposed by the National Assembly, and was set at liberty by the Prussians. The treaty of Paris was March 30, 1856. Savoy and Nice were annexed in March, 1860.
MAY. In this month he made his escape from Ham. The great French Exhibition was opened in May, 1855.
By far his best publication is his "Manual of Artillery."

TRY IT AND THEN EXPLAIN.

Take any printed book and open its pages at random, and select a word within the first ten lines, and within the tenth word from the end of the line. Mark the word. Now double the number of the page, and multiply the sum by 5.

Then add 20.

Then add the number of the line you have selected.

Then add 5.

Multiply the sum by 10.

Add the number of the word in the line. From this sum subtract 250, and the remainder will indicate in the unit column the number of the word; in the ten column the number of the line, and the remaining figures the number of the page.

THREE TIMES THREE.

A wonder is said to last three times three days. The scourge used for criminals is a "cat o' nine tails." Possession is nine points of the law, being equal to (1) money to make good a claim, (2) patience to carry a suit through, (3) a good cause, (4) a good lawyer, (5) a good counsel, (6) good witnesses, (7) a good jury, (8) a good judge, (9) good luck. Leases used to be granted for 999 years. Ordeals by fire consisted of three times three red-hot ploughshares.

There are three times three crowns recognized in heraldry, and three times three marks of cadency.

We show honor by a three times three in drinking a health.

The worthies are three Jews, three pagans and three Christians: viz.: Joshua, David and Judas Maccabæus; Hector, Alexander, and Julius Cæsar; Arthur, Charlemagne, and Godfrey of Bouillon.

It is by nines that Eastern presents are given, when the Orientals would extend their magnificence to the highest degree.

The Etruscans of old believed in the omnipotence of nine gods, viz.: Juno, Minerva and Tinia (the three chief). The other six were Vulcan, Mars, Saturn, Herculês, Summanus and Vedius. Thus:

> Lars Porsena of Clusium,
> By the nine gods he swore
> That the great house of Tarquin
> Should suffer wrong no more.
> By the nine gods he swore it,
> And named a trysting day. . . .
> To summon his array.
> —MACAULAY, *Lays of Ancient Rome.*

FAMOUS PERSONS AND PLACES.

Why then doth flesh, a bubble-glass of breath,
Hunt after honor and advancement vain,
And rear a trophy for devouring death,
With so great labor and long-lasting pain—
As if life's days forever should remain?
—SPENSER.

NAMES THAT ARE NOTED.

Cathay was the ancient name for China.

Twickenham is famous as the home of Pope.

The Sistine Chapel in the Vatican was built in 1473.

Andrew Jackson rode to his inauguration on horseback.

London wall defines the old boundary of Roman London.

The tide in the Bay of Fundy often rises as high as seventy feet.

The largest cavern in the world is the Mammoth Cave, Kentucky.

Oliver Wendell Holmes, alone, is left of the great American poets.

Leland Stanford will be famous for the noble university he founded.

J. C. Flood, the California millionaire, kept a saloon in San Francisco.

P. T. Barnum earned a salary as bartender in Niblo's Theatre, New York.

Miller (Hugh) taught himself geology while working as a mason (1802–1856).

The most extensive park is Deer Park in Denmark. It contains 4,200 acres.

Jay Gould canvassed Delaware County, New York, selling maps at $1.50 apiece.

Chicago is little more than fifty years old, and is the eighteenth city of the world.

Fleet Street, London, was once a swift-flowing stream—now converted into a sewer.

The deepest rock salt bore in the world is near Berlin, Prussia; it is 4,185 feet deep.

The Italian for "beautiful view," is *belvedere*, and is applied to a part of the Vatican in Rome, which gives its name to the famous statue of Apollo.

Bunyan wrote his "Pilgrim's Progress" while confined in Bedford jail (1628–1688).

Cobbett learned grammar in the waste time of his service as a common soldier (1762-1835).

Alfred the Great founded Oxford University and Charlemagne the University of Paris.

Bloomfield composed "The Farmer's Boy" in the intervals of shoemaking (1766-1823).

Whitelaw Reid did work as correspondent of a Cincinnati newspaper for five dollars a week.

George W. Childs, of Philadelphia, was an errand boy for a bookseller at six dollars a month.

The largest park in the United States is Fairmount, at Philadelphia, and contains 2,740 acres.

Adam Forepaugh was a butcher in Philadelphia when he decided to go into the show business.

It was in Kiev that Christianity was first planted in Russia. Here is the cathedral of St. Sophia.

The original inhabitants of Wales were the Cymri, from whom the country was named Cambria.

With different environment the same spirit governed those typical Americans, Curtis and Whittier.

The deepest coal mine in the world is near Tournai, Belgium; it is 3,542 feet in perpendicular depth.

The deepest hole ever bored into the earth is the artesian well at Potsdam, which is 5,500 feet deep.

Ferguson taught himself astronomy while tending sheep in the service of a Scotch farmer (1710-1776).

Etty utilized indefatigably every spare moment he could pick up when a journeyman printer (1787-1849).

Andrew Carnegie, the iron master, did his first work in a Pittsburg telegraph office at three dollars a week.

The deepest coal mines in England are the Dunkirk collieries of Lancashire, which are 2,824 feet in depth.

The "Man With the Iron Mask" did not wear a mask of iron. It was of black velvet, secured by steel springs.

The highest inhabited place in the world is the custom-house of Anconiarca in Peru, 16,000 feet above the sea.

The foremost American critic of today—Edmund Clarence Stedman—is a banker, who makes literary work his pastime.

The highest natural bridge in the world is at Rockbridge, Virginia. being two hundred feet high to the bottom of the arch.

The largest empire in the world is that of Great Britain, being 8,557,-658 square miles, and more than a sixth part of the globe.

Golden Lane, St. Luke's, London, received its name from the large number of goldsmiths who at one time lived in that vicinity.

Baumann's cavern in the Harz Mountains consists of six principal and many smaller compartments full of beautiful stalactites,

The "Weeping Philosopher" was Heraclitus of Ephesus; while Democritus of Abdera was called the "Laughing Philosopher."

The longest tunnel in the world is St. Gothard, on the line of the railroad between Lucerne and Milan, being 9½ miles in length.

The daughter of the Duke of Kent and wife of the Black Prince—on account of her great beauty was called "The Fair Maid of Kent."

The most remarkable echo known is that in the castle of Simonetta, two miles from Milan. It repeats the echo of a pistol sixty times.

Franklin, while working as a journeyman printer, produced his "Dissertation on Liberty and Necessity, Pleasure and Pain" (1706–1790).

The loftiest active volcano is Popocatapetl. It is 17,784 feet high, and has a crater three miles in circumference and one thousand feet deep.

Carey, the missionary and Oriental translator, learned the rudiments of Eastern languages while employed in making and mending shoes (1761–1834).

The Bridge of Sighs at Venice has no romance worthy the name. Most of the unfortunates who cross it are petty thieves who are sent to the workhouse.

Thunderstorms are more frequent in Java than in any other part of the world, there being an average of ninety-seven days in each year upon which they occur.

Chiswick is the home of William Morris, poet and æsthete, and is famous for its market-gardens and as the seat of the gardens of the Horticultural Society.

The electric railway has penetrated even the fastnesses of the Tyrolese mountains, a road twenty-seven miles long being projected between Riva and Pinzolo.

In Bengal, India, there are three harvests reaped every year, peas and oil seeds in April, the early rice crop in September and the great rice crop in December.

The maelstrom is not a whirlpool which sucks ships down into the depths of the ocean. It is an eddy which in fair weather can be crossed in safety by any vessel.

The city of Amsterdam, Holland, is built upon piles driven into the ground. It is intersected by numerous canals, crossed by nearly three hundred bridges.

The deepest perpendicular mining shaft in the world is located at Prizilram, Bohemia. It is a lead mine; it was begun in 1832. In January, 1880, it was 3,280 feet deep.

Isabella of France, wife of Edward II. of England, murdered her husband by thrusting a red hot iron into his bowels, and so earned the title, "The She-Wolf of France."

Donnybrook, a former village and parish, now mostly embraced in the borough of Dublin, was at one time celebrated for a fair notorious for fighting, which was abolished in 1855.

The first circumnavigator was Magellan, a Portuguese, who sailed round the world in three years and twenty-nine days, starting in 1519. Amongst others were Sir Francis Drake (1577), Cook (1708), Carteret (1766,) and Belcher (1836).

The deepest silver mine in the United States is the Yellow Jacket, one of the great Comstock system at Virginia City, Nev. The lower levels are 2,700 feet below the hoisting works.

John Adams was eight years older than Jefferson. Jefferson was eight years older than Madison. Madison was eight years older than Monroe. Monroe was eight years older than J. Q. Adams.

Hong Kong, formerly a little barren island at the mouth of the Canton river, in China, was given to the English and is now covered with the warehouses, gardens and residences of wealthy merchants.

The deepest coal shaft in the United States is located at Pottsville, Pa. In 1890 it had reached a depth of 1,576 feet. From this great depth four hundred cars, holding four tons each, are hoisted daily.

There is an unknown quantity of silver in the bay of Rio de Janeiro, Brazil; a silver mine, in fact, of comparatively speaking unlimited dimensions, and every ship that drops anchor there cuts into the bed of ore.

Gretna Green is a village in Dumfriesshire, Scotland, and the place where, for nearly a century, runaway couples were made man and wife. These irregular marriages were discountenanced by law in the year 1856.

Charing Cross was originally a London suburb, where was erected the last of the crosses in memory of Eleanor, Queen of Edward I. The cross was destroyed in 1647 but a new one was placed on the spot in 1865.

The Bridge of Sighs is the Bridge in Venice which connects the palace of the doge with the State prison, and was so called because over it prisoners were conveyed from the judgment hall to the place of execution.

The Maelstrom is a whirlpool, or more correctly current, between the islands of Mosken and Moskenas, two of the Lofoden Isles, which is dangerous when wind and tide are contrary. Its sound is heard for several miles.

A remarkable rock formation is located on a high peak of mountain about five miles from Agua Caliente, in Arizona. The rock, which measures 300 feet high, is shaped like a barrel and can be seen for miles distant.

The famous chief Black Hawk, of the Sac and Fox Indians, was born in 1767. He joined the British in 1812, and opposing the removal west of his tribe, fought against the United States in 1831-32. He died in 1838.

Clement (Joseph) son of a poor weaver, was brought up as a thatcher, but, by utilizing his waste moments in self-education and work of skill, raised himself to a position of great note, giving employment to thirty workmen (1779-1844).

The Champ de Mars is an open space in Paris, surrounded by artificial embankments. The Franks held their annual assemblies here in the month of March, *Mars*. Here a constitution was sworn to before Napoleon I., May 1, 1805, and other noted gatherings were held on the spot.

The cinque ports were the five great English ports on the coast of Kent and Sussex lying opposite to France—Sandwich, Dover, Hythe, Romney and Hastings. They were of high importance in Anglo-Saxon times and were made a separate jurisdiction, for insular defence, by William I.

The city of Ghent, Belgium, stands on 26 islands, connected with each other by 80 bridges. The city of Venice is built on 80 islands, connected by nearly 400 bridges. In Venice canals serve for streets and gondolas for carriages.

"Vaticānus Mons" is a hill at Rome, chiefly noted for its magnificent palace of the popes, the Vatican, with its superb gardens, its museums, celebrated library, and basilica of St. Peter. The palace was constructed in 498, but has been often enlarged.

How Anglesey obtained its name is quaintly told by the "chronicler": Edwin King of Northumberland, "warred with them that dwelt in the Isle of Mona, and they became his servants, and the island was no longer called Mona, but Anglesey, the isle of the English."

Thomas Chatterton, "the marvelous boy," was a literary impostor. He began in 1768 to produce poems which he pretended to be from the pen of Thomas Rowley, a monk of the fifteenth century. Chatterton was born at Bristol, and committed suicide (1752-1771).

Chillon is a celebrated castle of Switzerland, at the eastern end of the Lake of Geneva. It stands on an isolated rock, and long served as a state prison. Here for six years (1530-36) Bonnivard endured the captivity immortalized by Byron's "Prisoner of Chillon" (1821).

Calaveras Grove in California is noted for its immense trees. Of 92 redwood trees there are 10 over 30 feet in diameter, and 82 have a diameter of from 15 to 30 feet. Their ages are estimated at from 1000 to 3500 years. Their height ranges from 150 to 237 feet.

A famous old ruin is Blarney Castle, near Cork, Ireland, in the wall of which is a stone, difficult of access, that is said to endow the one kissing it with the power of cajolery. In general Blarney is a colloquial term applied to any smooth and excessively complimentary talk.

Haroun-al-Raschid, the caliph of the Abbasside race, was contemporary with Charlemagne, and, like him, a patron of literature and the arts. The court of this caliph was most splendid, and under him the caliphate attained its greatest degree of prosperity (765-809).

There is a point near the famous Stony cave, in the Catskill mountains, where ice may be found on any day in the year. This locality is locally known as the Notch, and is walled in on all sides by steep mountains, some of which are more than three thousand feet high.

In Hawaii, one of the Sandwich islands, there is a spot called the Rock of Refuge. If a criminal reaches this rock before capture he is safe so long as he remains there. Usually his family supply him with food until he is able to make his escape, but he is never allowed to return to his own tribe.

The "Iron Chancellor" was the name applied to Prince Otto von Bismarck, of Prussia (1813), Chancellor of the North German Confederation, July 14, 1867. He retired from public life in 1890. He was also known as "The Man of Blood and Iron," from an expression in one of his speeches.

Mount Vernon, memorable as the residence and the burial-place of George Washington, is on the right bank of the Potomac, in Virginia, fifteen miles below Washington. In 1856 the mansion and surrounding property were saved from the auctioneer's hammer and secured as a national possession.

The island of St. Helena, where Napoleon was held a prisoner, has an area of forty-seven square miles. Its population is more than 4,000, but 200 emigrants leave it annually. The whale fisheries there are under American management and amount to about $90,000 a year.

The Lunatic oil spring of Wheeler Canyon, Cal., at the time of a new moon begins to flow oil. When the moon is at its full the spring yields three barrels of oil a day. The quantity decreases with the waning of the moon, and ceases when the moon's last quarter is past.

Among the noted pseudonyms of history Cid Campeador is the name, or rather names, by which the most renowned Spanish warrior of the eleventh century is best known. He was a Castilian noble, whose real name was Rodrigo, and was ancester of the royal house of Castile.

Covent Garden, originally the garden of the Abbot of Westminster, is a spacious square in London, celebrated for a great market held within it of fruit, vegetables and flowers. The square was formed about 1631 and is famous from its connection with the modern history of London.

The covered passage-way which connects the palace of the doge in Venice with the State prisons has been called "the Bridge of Sighs," because the condemned passed over it from the judgment hall to the place of execution. Hood has a poem called "The Bridge of Sighs."

Delft, one of the most ancient towns of South Holland, is situated on the Schie, eight miles NW. of Rotterdam by rail, and is intersected by numerous canals. Delft was noted from the sixteenth to the eighteenth century for its delft-ware, but has now entirely lost its high reputation for this manufacture.

Threadneedle street, in the city of London, got its name from the Merchant Tailors' Company, whose present hall is built on an estate acquired by them as early as 1331. It leads from Bishopsgate street to the Bank of England, which hence is often called the "Old Lady in Threadneedle Street."

Abydos is a town of Asia Minor, situated on the Hellespont. Tradition places here the story of Hero and Leander; history tells that this was where Xerxes led his vast army over the Hellespont on a bridge of boats; and Byron here swam the Hellespont and rendered it ever famous by his "Bride of Abydos."

D'Aguesseau, the great French chancellor, observing that Mme. D'Aguesseau always delayed ten or twelve minutes before she came down to dinner, began and completed a learned book of three volumes (large quarto) solely during these "waste minutes." This work went through several editions (1668-1751).

The Straits of Babelmandeb, the passage from the Persian Gulf into the Red Sea, are called the Gate of Tears by the Arabs. The channel is only about twenty miles wide, is rocky and very dangerous for passage in rough weather. It received its melancholy name from the number of shipwrecks that occurred there.

Spanish Main (*i.e.*, *main-land*), a name given to the north coast of South America, from the Orinoco to Darien, and to the shores of the former Central American provinces of Spain contiguous to the Caribbean Sea. The name, however, is often popularly applied to the Caribbean Sea itself, and in this sense occurs frequently in connection with the buccaneers.

The convivial Toby Fillpot was a thirsty old soul, who "among jolly topers bore off the bell." It chanced as in dog-days he sat boosing in his arbor, that he died "full as big as a Dorchester butt." His body turned to clay, and out of the clay a brown jug was made, sacred to friendship, mirth, and mild ale.

Charles XII. of Sweden (1697–1710) was known as the "brilliant madman." He compelled the Danes to make peace, dethroned the king of Poland and waged war with Russia for a time with success; but, being defeated by Czar Peter the Great at Pultowa, Sweden fell from her high estate as a first-class power.

The Falls of Niagara eat back the cliff at the rate of about one foot a year. In this way a deep cleft has been cut right back from Queenstown, for a distance of seven miles, to the place where the falls now are. At this rate it has taken more than thirty-five thousand years for that channel of seven miles to be made.

The most extensive mines in the world are those of Freyburg, Saxony. They were begun in the twelfth century, and in 1835 the galleries, taken collectively, had reached the unprecedented length of 123 miles. A new gallery, begun in 1838, had reached a length of eight miles at the time of the census of 1878.

The Vendôme Column in Paris was erected by Napoleon I. (1806), in the Place Vendôme, to commemorate his successful campaign in Germany; pulled down by the Communists (1871), but restored by the National Assembly (1874). It is one hundred and thirty-two feet high, with a statue of Napoleon I. at the top.

The Alhambra is a palace and fortress of the Moors, founded about 1253 by Mohammed I. Celebrated as the palace of the kings of Granada, its two courts, that of the Myrtles and that of the Lions, are beautiful examples of Arabian art in Spain. The Alhambra was surrendered to the Christians by the Moors about 1491.

In 1818, Captain John Cleves Symmes propounded the theory that the earth is a hollow sphere, habitable within, and open at the poles for the admission of light, containing within six or seven concentric hollow spheres, also open at the poles. This theory in ridicule has always been spoken of as Symmes' or Symmes's Hole.

Burritt (Elihu) made himself acquainted with ten languages while plying his trade as a village blacksmith (Hebrew, Greek, Syriac, Spanish, Bohemian, Polish, Danish, Persian, Turkish and Ethiopic). His father was a village cobbler, and Elihu had only six months' education, and that at the school of his brother (1811–1879).

The Crystal Palace on Sydenham Hill, London, is composed of the greater part of the buildings used for the Great Exhibition of 1851. It was opened by the Queen, June 10, 1854. There is another crystal palace in New York City which was erected on Reservoir Square, July 14, 1853, as a universal industrial exhibition. This was destroyed by fire October 5, 1858.

The famous French stronghold, the Bastiile, was originally built by Charles V. as a chateau, in 1369. The high wall around it was subsequently erected by Philippe-Auguste. Louis XI. first used it as a State prison, and it was eventually demolished by the people during the Revolution, July 14, 1789. The "Man in the Iron Mask" was imprisoned there, and died in 1703.

The Rubicon is a river of Italy, flowing into the Adriatic, which formed the boundary between Cisalpine Gaul and Italy proper. The passage of this river by Julius Cæsar was necessarily the signal for civil war, the issue of which could not be foreseen, as Roman generals were forbidden to cross this river at the head of an army.

The Smithsonian Institution is the name of a celebrated Institution in Washington, D. C., founded (1846) for the encouragement of scientific research and the diffusion of scientific knowledge, under the will of James Smithson (natural son of the third Duke of Northumberland), who bequeathed over $500,000 for this purpose.

The highest summit of the Harz mountains in Prussian Saxony is called the Brocken. It occupies an important place in the folklore of North Germany. Here annually assemble the witches on Walpurgis night to hold their revels on its summit. It is also interesting for the phenomenon known as the "Spectre of the Brocken."

Corso is an Italian word used to express not only the racing of riderless horses, but also the slow driving in procession of handsome equipages through the principal streets of a town, such as almost always takes place in Italy on festivals. Hence the name has been applied to many such Italian thoroughfares, notably the Corso in Rome.

The population of Chicago in 1830, was 70; 1840, 4,853; 1845, 12,088; 1850, 29,963; 1855, 60,227; 1860, 112,172; 1865, 178,900; 1870, 298,977; 1872, 364,377; 1880, 503,185; 1884 (estimated), 675,000; 1885 (estimated), 727,000; 1886 (estimated), 750,000; 1887 (estimated), 760,000; 1889 (estimated), 1,000,000; 1890, 1,099,133; 1892 (school census), 1,438,010.

The Ghetto is the Jews' quarter in Italian cities, to which they used to be strictly confined. The ghetto of Rome, instituted in 1556 by Pope Paul IV., was removed in 1885 and following years, its demolition having been rendered necessary by the new Tiber embankment. The term is also employed to indicate the Jews' quarters in any city.

Crœsus, the last king of Lydia, succeeded his father, Alyattes, in 560 B.C. He made the Greeks of Asia Minor his tributaries, and extended his kingdom eastward from the Ægean to the Halys. From his conquests, his mines and the golden sand of the Pactolus he accumulated so much treasure that his wealth has become a proverb.

Temple Bar is the name of a London gateway which formerly stood at the junction of Fleet street and the Strand. It was rebuilt by Sir Christopher Wren in 1672-73; was removed, having become an obstruction in 1878-79, and was re-erected at Theobald's Park, near Chestnut, in 1888. The memorial which marks the site was erected in 1880.

The fair of Nijni-Novgorod is the greatest in the world, the value of goods sold being as follows: 1841, $35.000,000; 1857, $60,000,000; 1876, $140,000,000; the attendance in the last named year including 150,000 merchants from all parts of the world. In that of Leipsic the annual average of sales is $20,000,000, comprising 20,000 tons of merchandise, of which two-fifths is books.

Kara George Petrovitsch, known as Black George, of Servia, was a Servian peasant who, in 1804, revolted against the Porte. Having defeated several armies sent against him, in 1807 he took Belgrade, and formed a military government in Servia. In 1811, Turkey acknowledged him "hospodar of Servia," but, in 1814, the Turks recovered the country, Black George fled to Austria, was imprisoned, and died.

Caledonia is the name given by the Romans to that part of Scotland lying between the Forth and the Clyde; so called from the tribe of Caledonii. The name disappears in the fourth century, and the people of Scotland began to be called Picts (to the east) and Scots (to the west). In more modern times Caledonia is a poetical name for Scotland.

Delphi was an ancient northern Greek town, celebrated for the oracles pronounced by the Pythian priestess in the temple of Apollo. The oracle was known as early as 900 B. C., and the temple became the repository of immense treasures. It was plundered by the Phocians and Nero, the latter taking away three huudred costly statues in 67 A. D.

Alsatia is a cant name applied to the precinct of Whitefriars, which, until 1697, enjoyed the privilege of a debtors' sanctuary, and hence was crowded with swindlers and bullies. The name is first met with in 1623, and we have Shadwell's comedy, "The Squire of Alsatia" (1688), Scott's authority for some of the finest scenes in the "Fortunes of Nigel."

Jack Cade was the ringleader of the insurrection that broke out in Kent, 1450. He was an Irishman, and called himself Mortimer, claiming to be a natural son of the Duke of York. He marched to London at the head of twenty thousand armed men, who encamped at Blackheath, June 1, 1450. Being slain by Alexander Iden, July 11, his head was stuck on London Bridge.

The name "Ironsides," was popularly applied to the regiment of a thousand horse, which Cromwell raised mainly in the eastern counties for service against King Charles I. early in the great Civil War. The name, already given for his bravery to an English king, Edmund, was first attached to Cromwell himself, but passed easily to the men at whose head he first appeared at Edgehill.

Karl Friedrich Hieronymus, Baron von Münchhausen, was a member of an ancient, noble family of Hanover, whose name has become proverbial as the narrator of false and ridiculously exaggerated exploits and adventures. He was born May 11, 1720, at Bodenwerder, in Hanover, served as a cavalry officer in Russian campaigns against the Turks, and died at his birthplace, February 22, 1797.

Dismal Swamp, measuring thirty miles from north to south by ten in breadth, lies chiefly in Virginia, but partly in North Carolina. In the center is Lake Drummond, about six miles broad; elsewhere its dense growth of cypress and cedar has been greatly thinned, and part of the region has been reclaimed. The tract is intersected by a canal connecting Chesapeake Bay and Albemarle Sound.

Alloway, Burns' birthplace, and the scene of his "Tam o' Shanter," lies on the right bank of the "bonny Doon," two miles south of the town of Ayr. The "auld clay biggin," in which the poet was born on 23d January, 1759, was in 1880 converted into a Burns Museum. The "haunted kirk" still stands, a roofless ruin, near the "Auld Brig;" and hard by is the Burns Monument erected in 1820.

The subject of the famous song "Annie Laurie" was the eldest of the three daughters of Sir Robert Laurie, of Maxwelton. In 1709 she married James Fergusson, of Craigdarroch, and was the mother of Alexander Fergusson, the hero of Burn's song, "The Whistle." The song of "Annie Laurie" was written by William Douglas, of Finland, in the stewardry of Kirkcudbright, hero of the song "Willie was a Wanton Wag."

In Java the "Valley of the Upas Tree" is sometimes called the "Valley of Death," and its deadly influence was formerly ascribed to the malignant properties of a peculiar vegetable production of the island, called the "upas tree," which especially flourishes in this locality. Recent travelers, however, declare that accounts of the fatality attending a passage of this famous valley have been greatly exaggerated.

Crispinos and Crispianus were two brothers, born at Rome, from which place they traveled to Soissons, in France (about A.D. 303), to propagate the gospel, and worked as shoemakers, that they might not be chargeable to any one. The governor of the town ordered them to be beheaded the very year of their arrival, and they were made the tutelary saints of the "gentle craft." St. Crispin's Day is October 25.

The nine worthies is the title given to the following eminent men: *Jews:* Joshua (1426 B.C.), David (1015 B.C.), Judas Maccabæus (161 B.C.); *Heathens:* Hector of Troy (1184 B.C.), Alexander the Great (323 B.C.), Julius Cæsar (44 B.C.); *Christians:* King Arthur of Britain (542 A.D.), Charlemagne of France (814 A.D.), Godfrey of Bouillon (1100 A.D.). In some lists Gideon and Samson are introduced, and in others Hercules and Pompey.

San Marino, in Italy, on the coast of the Adriatic Sea, is the oldest Republic in the world. It is, next to Monaco, the smallest State in Europe. The exact date of the establishment of this Republic is not known, but according to tradition it was in the fourth century, by Marinus, a Dalmatian hermit, and has ever since remained independent. It is mountainous and contains four or five villages. The word "liberty" is inscribed on its capitol.

The Tuileries is the name of a garden and palace in Paris, built on the site of an ancient *fabrique de tuiles.* It was composed of three great pavilions, called *Le pavillon de Marsan* (north), the *pavillon de Flore* (south), and the *pavillon de l'Horloge* (center). It was joined to the Louvre by Napoleon III. (1851-6). The land was bought by Francois I. in 1564, and the original palace was made for Catherine de Medicis after the design of Philibert Delorme.

Since 1811 Ajaccio has been the capital of Corsica. It has a fine cathedral, completed in 1585, and a spacious harbor, protected by a citadel; but its special interest is as the birthplace of Napoleon. There is a statue of him as First Consul (1850), and a monument of the emperor on horseback, surrounded by his four brothers (1865). The house of the Bonapartes, the "Casa Bonaparte" is now national property. The chief employments are the anchovy and pearl fisheries, and the trade in wine and olive-oil, which the neighborhood produces in abundance, and of good quality. Of late years Ajaccio has become a winter resort for consumptive patients.

The familiar name Bedlam is a corruption of Bethlehem, formerly a hospital founded by Simon Fitz-Mary in Bishopsgate Street Without, London, in 1246, as "a privy of canons, with brethren and sisters." When the religious houses were suppressed by Henry VIII. the corporation converted it into a lunatic asylum for six lunatics, but in 1641, the funds being insufficient, partly convalescent patients were turned out to beg, and wore a badge. These were the "Bedlam Beggars," generally called "Tom-o'-Bedlams." In 1675 the old building was taken down and a new one was erected in Moorfields. In 1814 this building was also pulled down, and a new hospital built in St. George's Fields.

Bramah (Joseph), a peasant's son, occupied his spare time when a mere boy in making musical instruments, aided by the village blacksmith. At the age of sixteen he hurt his ankle while plowing, and employed his time while confined to the house in carving and making woodwares. In another forced leisure from a severe fall he employed his time in contriving and making useful inventions, which ultimately led him to fame and fortune (1749–1814).

Among the noted club-rooms of the eighteenth century was Almack's. It was a suite of assembly rooms, built in 1765 in King street, St. James', London, by a tavern-keeper named M'Call, who inverted the two syllables of his name, Mac-call, into Allmack, or Almack. The rooms became famous for fashionable balls under the management of a committee of ladies of the highest rank. The rooms are now called Willis' Rooms from a proprietor named Willis.

Saint Veronica was, according to the legend, one of the women who met our Lord on His way to Calvary. She offered Him her veil to wipe the sweat from His brow, when, wondrous to tell, the Divine features were miraculously imprinted upon the cloth and remained as a permanent picture of the face of our Lord. This miraculous picture is reported to have been preserved in Rome from about the year 700, and was exhibited in St. Peter's on December 8, 1854.

Half legendary, half historic is the name of Vortigern, the British prince who is reported by Bede, Nennius, and Geoffrey of Monmouth to have invited the Saxons into Britain to help him against the Picts, and to have married Rowena, daughter of Hengist. His allies soon became, according to the legend, enemies even more dangerous than the Picts, and soon destroyed the British princes. Samuel Ireland fathered his historical play of "Vortigern" on Shakspeare.

Among odd titles for towns is that of Westward Ho, on the coast of North Devon, 2½ miles west of Biddeford, which owes not merely its name but its existence to Charles Kingsley's Elizabethan romance (1855), which attracted swarms of visitors to North Devon. For their accommodation this pretty cluster of villas and lodging houses, with its church, hotel, club-house, and college, has sprung up since 1867. The bathing facilities are excellent, and it is a great resort of golfers.

Prester John is the name applied by mediæval credulity for two hundred years to the supposed Christian sovereign of a vast but ill-defined empire in central Asia. The idea of a powerful Christian potentate in the far East, at once priest and king, was universal in Europe from about the middle of the twelfth to the beginning of the fourteenth century, when it was transferred to Ethiopia and finally found a fancied historical justification in identification with the Christian king of Abyssinia.

Windermere, or Winandermere, the largest lake in England, called from its beauty "Queen of the Lakes," is partly in the county of Lancaster, and partly divides that county from Westmoreland. It is nearly eleven miles long and about one mile in extreme breadth. About a mile from Waterhead, at the north extremity of the lake, is the town of Ambleside, a mile and a half north-west of which is Rydal, the residence of the poet Wordsworth; in the vicinity of Waterhead is Dove's Nest, the cottage at one time occupied by Mrs. Hemans; farther down the East shore is Elleray, famous as the residence of "Christopher North;" and half-way down the lake, on the eastern shore, is Bowness.

Before the Reformation the clergy used to walk in procession every year on Corpus Christi day to St. Paul's Cathedral. They mustered at the upper end of Cheapside, and there commenced chanting the *Paternoster*, which continued through "Pater-noster Row"; at the end of the Row they said *Amen*, and the spot was called "Amen Corner." They then began the *Ave Maria*, turning down "Ave Maria Lane." After crossing Ludgate, they chanted the *Credo* in "Creed Lane" (which no longer exists).

The Tarpeian rock was so called from Tarpeia, daughter of Spurius Tarpeius governor of the citadel on the Saturnian Hill of Rome. The story is that the Sabines bargained with the Roman maid to open the gates to them, for the "ornaments on their arms." As they passed through the gates, they threw on her their shields, saying, "These are the ornaments we bear on our arms." She was crushed to death, and buried on the Tarpeian Hill. Ever after, traitors were put to death by being hurled headlong from the hill-top.

An ancient and popular English gathering was the Bartholomew fair held 24 August (old style). Henry I., in 1133, granted the charter of this fair to Rayer or Rahere, a monk. Like all other fairs, it was connected with the church, and miracle plays, mysteries and moralities were performed. In 1445 four persons were appointed by the Court of Aldermen as keepers of the fair. In 1661 the fair lasted fourteen days. In 1691 the fair was limited to three days. In 1840 the fair was removed to Islington; and in 1855 it was discontinued.

La Belle Alliance is the name of a farm some thirteen miles from Brussels; ever memorable for being the position occupied by the centre of the French infantry in the battle of Waterloo (June 18, 1815). Napoleon himself was in the vicinity of this farm, but Wellington was at Mont St. Jean, two miles further north. Between these two spots was La Haye Sainte, where were posted the French tirailleurs. The Prussians call the battle of Waterloo the "Battle of la Belle Alliance" and the French call it the "Battle of Mont Saint-Jean.

Will's Coffee House was a noted resort in the reign of Charles II. near Covent Garden at the western corner of Bow street. It was the great emporium of libels and scandals, but was one of the best in London, and had acquired the sobriquet of "the Wit's Coffee-house." Here the frequenters heard the talk of the town about the poets, authors, and other celebrities, and here was the "Observator" and all the Tory and Whig journals of the day; and here would be found Matthew Prior, John Dryden, Betterton the tragedian and other celebrities.

Thirty miles from the City of Kumamoto, Japan, is the volcano Aso San, which has the largest crater in the world. It is more than thirty miles in circumference, and peopled by twenty thousand inhabitants. Think of walking for miles among fertile farms and prosperous villages, peering into schoolhouse windows and sacred shrines well within the shell of an old-time crater, whose walls rise eight hundred feet all about you. It gives one a queer feeling. Hot springs abound everywhere. In one place brick-red hot water is utilized to turn a rice mill. The inner crater is nearly half a mile in diameter, and a steady column of roaring steam pours out of it. The last serious eruption was in 1884, when immense quantities of black ashes and dust were ejected and carried by the wind as far as Kumamoto, where for three days it was so dark that artificial light had to be used.

The first proposer of secession in the United States Congress was Josiah Quincy, of Massachusetts, in 1811, who said that, if Louisiana were admitted into the Union, "it will be the right of all and the duty of some [of the States] definitely to prepare for a separation—amicably if they can, violently if they must." Mr. Poindexter, of Mississippi, called him to order, as did the Speaker of the House; but on appeal the Speaker's decision was reversed and Mr. Quincy sustained by a vote of fifty-three ayes to fifty-six noes on the point of order.

St. James's Palace is a large, inelegant brick structure, fronting towards Pall Mall. Originally a hospital dedicated to St. James, it was reconstructed and made a manor by Henry VIII., who also annexed to it a park. Here Queen Mary died (1558); Charles I. slept here the night before his execution; and here Charles II., the Old Pretender, and George IV. were born. When Whitehall was burned in 1697, St. James became the regular London residence of the British sovereigns, and it continued to be so till Queen Victoria's time.—*The Court of St. James* is a frequent designation of the British Court.—St. James Park lies southward from the Palace, and extends over fifty-eight acres.

Amerigo Vespucci was a naval astronomer, from whom America accidentally received its name. He was born at Florence, March 9, 1451, and was at the head of a large Florentine firm in Seville in 1496. He fitted out Columbus' third fleet, and in 1499 himself sailed for the New World with Ojeda, and explored the coast of Venezuela. The accident which fastened his name on two continents may be traced to an inaccurate account of his travels published at St. Dié in Lorraine in 1507, in which he is represented to have reached the mainland in 1497—which would have been before either Cabot or Columbus—and in which the suggestion is made that he should give his name to the world he had discovered.

The first historical notices of Niagara Falls are given in Lescarbot's record of the second voyage of Jacques Cartier in the year 1535. On the maps published to illustrate Champlain's discoveries (date of maps either 1613 or 1614) the falls are indicated by a cross, but no description of the wonderful cataract is given, and the best geographical authorities living to-day doubt if the explorer mentioned ever saw the falls, Brinson's work to the contrary notwithstanding. Father Hennepin is believed to have written the first description of the falls that ever was penned by one who had personally visited the spot. The editor of "Notes for the Curious," owns a map, dated 1657, which does not figure either the great lakes or the falls.

A dungeon or dark cell in a prison is usually called the "black hole." The name is associated with the cruel confinement of a party of English in the military prison of Fort William, since called the "Black Hole of Calcutta," on the night of the 19th June, 1756. The garrison of the fort connected with the English factory at Calcutta having been captured by Suraja Dowlah (Siráj-ud-Daula), the nawab of Bengal, he caused the whole of the prisoners taken, one hundred and forty-six in number, to be confined in an apartment eighteen feet square. This cell had only two small windows, and these were obstructed by a veranda. The crush of the unhappy sufferers was dreadful; and after a night of excruciating agony from pressure, heat, thirst and want of air, there were in the morning only twenty-three survivors, the ghastliest forms ever seen on earth.

Samuel William Henry Ireland was a literary impostor. He published in folio, 1795, "Miscellaneous Papers and Instruments under the hand and seal of William Shakspeare, including the tragedy of 'King Lear,' and a small fragment of 'Hamlet,' from the original," price about $25. On April 2, 1796, he produced the play of "Vortigern and Rowena" from the pen of Shakspeare. It was actually represented, and drew a most crowded house. Dr. Parr, Dr. Valpy, James Boswell, Herbert Croft, and Pye, the poet-laureate, signed a document certifying their conviction that Ireland's productions were genuine; but Malone exposed the imposition of the tragedy, and Ireland publicly confessed that all his publications, from beginning to end, were impositions.

One of the most picturesque and remarkable bodies of water in the world is Henry's Lake, in Idaho. It is situated on the dome of the continent in a depression in the Rocky Mountains called Targee's Pass. It has an area of forty square miles, and all around it rise snow-capped peaks, some of them being the highest of the continent's backbone. In the lake is a floating island about 300 feet in diameter. It has for its basis a mat of roots so dense that it supports large trees and a heavy growth of underbrush. These roots are covered with several feet of rich soil. The surface is solid enough to support the weight of a horse anywhere, and there are places where a house could be built. The wind blows the island about the lake, and it seldom remains twenty-four hours in the same place.

Amadis of Gaul was the love-child of King Perion and the Princess Elizena. He is the hero of a famous prose romance of chivalry, the first four books of which are attributed to Lobeira, of Portugal (died 1403). These books were translated into Spanish in 1460 by Montalvo, who added the fifth book. The five were rendered into French by Herberay, who increased the series to twenty-four books. Lastly, Gilbert Saunier added seven more volumes, and called the entire series *Le Roman des Romans*. Whether Amadis was French or British is disputed. Some maintain that "Gaul" means *Wales*, not France; that Elizena was Princess of *Brittany* (Bretagne), and that Perion was king of Gaul (*Wales*), not Gaul (*France*). Amadis de Gaul was a tall man, of a fair complexion, his aspect something between mild and austere, and had a handsome black beard. He was a person of very few words, was not easily provoked, and was soon appeased.

The famous leaning tower of Pisa is a campanile, or bell tower. It was begun in 1174 by the two famous architects—Bonano of Pisa and William Innspruck. The tower, which is cylindrical in form, is 179 feet high and fifty feet in diameter, made entirely of white marble. It has eight stories, each with an outside gallery projecting several feet from the building, and each decorated with columns and arcades. In the center of the tower a flight of 320 steps passes up to the summit. It is called the leaning tower from the fact that it inclines some thirty feet from the perpendicular, and it is not generally known that this inclination, which gives the tower such a remarkable appearance, was not intentional. At the time it was about half done the error in measurement was perceived, and it was guarded against by the use of extra braces in the further construction of the building and an adaption of the stone in the highest portion. There are seven bells on the top of the tower, the largest of which weighs twelve thousand pounds, and these are so placed as to counteract, as far as possible, the leaning of the tower itself.

Timbuctoo (native *Tumbutu*, Arab. *Tinbukhtu*), is a famous city of the Soudan, on the southern edge of the Sahara. It lies about eight miles north of the main stream of the Joliba or Upper Niger. It stands only a few feet above the level of the river, is about three miles in circumference, and at present without walls, though in former times it covered a much greater area, and was defended by walls. The houses are mainly one-story mud-hovels, but one of the three chief mosques is a large and imposing building, dating from 1325. The place stands on an important trade route between the interior and the west and south; and its importance has increased through the gradual extension of French influence hither. It was the theme of one of Tennyson's early poems.

The "Man in the Iron Mask" is the title given to a state prisoner who went by the name of L'Estang. In 1662 he was confined in the Château Pignerol. In 1686 he was removed to the Ile Saint Marguerite, and in 1698 to the Bastille, where he died in 1703. He was a state prisoner above 40 years. He was buried under the name of Marchiali. Voltaire says he was a twin brother of Louis XIV.; some think he was the Comte de Vermandois, a natural son of Louis XIV. and Mdlle. de la Vallière, who was thus punished for boxing the ears of the dauphin; others think he was the Duke of Beaufort, who disappeared in 1669 at the siege of Candia; or the Duke of Monmouth, nephew of James II.; or the Count Girolamo Matthioli, minister of the Duke of Mantua, who overreached Louis in a treaty for the purchase of Casal; or John of Gonzaque, Matthioli's secretary; or an adulterous son of Anne of Austria (the king's mother) either by the Duke of Buckingham or the Cardinal Mazarin.

THE TRUTH ABOUT ASPASIA.

One of the most remarkable women of antiquity, Aspasia, was born at Miletus. The circumstance that in Athens marriage with foreign women was illegal, has originated the erroneous notion that Aspasia was a courtesan. She certainly broke the restraint which confined Athenian matrons to the seclusion of their own homes, for after her union with Pericles, who had parted from his first wife by mutual consent, her house became the rendezvous of all the learned and distinguished people in Athens. Socrates often visited her. Her beauty, varied accomplishments, and political insight were extraordinarily great. From the comic writers and others she received much injustice. Hermippus, the comic poet, took advantage of the temporary irritation of the Athenians against Pericles, to accuse Aspasia of impiety; but the eloquence of the great statesman procured her acquittal. Her influence over Pericles must have been singularly great, and was often caricatured—Aristophanes ascribing to her both the Samian and the Peloponnesian wars, the latter on account of the robbery of a favorite maid of hers. Plutarch vindicates her against such accusations. Her son by Pericles was allowed to assume his father's name. After the death of Pericles (429 B.C.) Aspasia formed a union with Lysicles, a wealthy cattle-dealer, who, through her influence, became an eminent man in Athens.

THE STORY OF ACADIE.

Longfellow in his "Evangeline" has immortalized the sufferings of the French peasantry of Acadie or Acadia. This was the name given by the French settlers to Nova Scotia on its first settlement in 1604. The English claimed the colony by right of discovery—as having been discovered by

the Cabots; the exclusive possession of the fisheries proved a further bone of contention. In 1667 it was ceded to France, but the English colonists never recognized the cession, and harassed the French settlers. In 1713 France gave up all claim to the colony: the Acadians mostly remained though they had liberty to leave within two years, and were exempted from bearing arms against their brethren. A French settlement was formed on Cape Breton, and received the name of Louisbourg, whilst as a result of French intrigues with the Indians, the latter harassed the English. The majority of the Acadians would not take the oath of allegiance nor would they refrain from abetting underhand hostilities against the English. "The French government" says Parkman, "began by making the Acadians its tools, and ended by making them its victims." Accordingly, in 1755 it was determined at a consultation of the governor and his council to remove them; and to the number of about 18,000, they were dispossessed of their property and dispersed among the other British provinces. This wholesale expatriation, often severely condemned, was not resorted to until every milder resource had been tried. A simple, yet very ignorant peasantry, living apart from the rest of the world, they were ruled by the priest, who taught them to stand fast for the church and King Louis, and to resist heresy and King George.

THE ENGLISH CLAIMANT.

In 1867 an Englishman in London declared he was Sir Roger Charles Tichborne, and claimed the estates and income of $120,000 a year. The Dowager accepted him, but his claim was resisted on behalf of Sir Henry Tichborne, then a minor, and the trial of the claim began May 11, 1871, and on the 6th March, 1872, the "claimant" was declared non-suited. The Attorney-General, Sir J. D. Coleridge, who spoke twenty-six days, appeared for the defence, and Dr. Kenealy for the claimant. The claimant was prosecuted as Thomas Castro *alias* Arthur Orton, for perjury, and found guilty February 28, 1874, and sentenced to fourteen years' penal servitude. The judges refused a new trial, and the House of Lords confirmed the sentence on appeal, March 11, 1881. This was the longest trial on record in England.

NOTES ON MAMMOTH CAVE.

The Mammoth Cave is in Edmonson County, near Green River, about seventy-five miles from Louisville. It was discovered in 1809 by a hunter named Hutchins, while in pursuit of a wounded bear. Its entrance is reached by passing down a wild, rocky ravine through a dense forest. The cave extends some nine miles. To visit the portions already traversed, it is said, requires 150 to 200 miles of travel. The cave contains a succession of wonderful avenues, chambers, domes, abysses, grottoes, lakes, rivers, cataracts, and other marvels, which are too well known to need more than a reference. One chamber—the Star—is about 500 feet long, 70 feet wide, 70 feet high, the ceiling of which is composed of black gypsum, and is studded with innumerable white points, that by a dim light resemble stars, hence the name of the chamber. There are avenues one and a half, and even two miles in length, some of which are incrusted with beautiful formations, and present the appearance of enchanted palace halls. There is a natural tunnel about three quarters of a mile long, 100 feet wide, covered with a ceil-

ing of smooth rock 45 feet high. There is a chamber having an area of from four to five acres, and there are domes 200 and 300 feet high. Echo River is some three-fourths of a mile in length, 200 feet in width at some points, and from 10 to 30 in depth, and runs beneath an arched ceiling of smooth rock about 15 feet high; while the Styx, another river, is 450 feet long, from 15 to 40 feet wide, and from 30 to 40 feet deep, and is spanned by a natural bridge. Lake Lethe has about the same length and width as the river Styx, varies in depth from 3 to 40 feet, lies beneath a ceiling some 90 feet above its surface, and sometimes rises to a height of 60 feet. There is also a Dead Sea, quite a somber body of water. There are several interesting caves in the neighborhood, one three miles long, and three each about a mile in length.

CRADLES AND GRAVES.

I.—Where our Presidents were born:

Virginia, 5—Washington, Jefferson, Madison, Monroe, Tyler.
Massachusetts, 2 — John Adams, John Quincy Adams.
Tennessee, 3—Jackson, Polk, Johnson.
Ohio, 3—Harrison, Hayes, Garfield.
New York, 4—Van Buren, Fillmore, Arthur, Cleveland.
Illinois, 2—Lincoln, Grant.
Louisiana, 1—Taylor.
New Hampshire, 1—Pierce.
Pennsylvania, 1—Buchanan.

II.—Where they were interred:

Washington, at Mt. Vernon, Va.
John Adams, at Quincy, Mass.
Jefferson, at Monticello, Va.
Madison, at Montpelier, Va.
Monroe, at Richmond, Va.
John Quincy Adams, at Quincy, Mass.
Jackson, at "The Hermitage," Ky.
Van Buren, at Kinderhook, N. Y.
Harrison, at North Bend, O.
Polk, at Nashville, Tenn.
Taylor, at Louisville, Ky.
Fillmore, at Buffalo, N. Y.
Pierce, at Concord, N. H.
Buchanan, at Lancaster, Pa.
Lincoln, at Springfield, Ill.
Johnson, at Greenville, Tenn.
Grant, at Riverside, N. Y.
Hayes, at Fremont, O.
Garfield, at Cleveland, O.
Arthur, at Albany, N. Y.

FAMOUS ANCIENT CITIES.

Nineveh was 15 miles long, 8 wide and 40 miles round, with a wall 100 feet high, and thick enough for 3 chariots abreast. Babylon was 50 miles within the walls, which were 87 feet thick and 350 high, with 100 brazen gates. The Temple of Diana, at Ephesus, was 420 feet to the support of the roof. It was 100 years in building. The largest of the pyramids is 461 feet high, and 653 feet on the sides; its base covers 11 acres. The stones are about thirty feet in length, and the layers are 380. It employed 330,000 men in building. The labyrinth, in Egypt, contains 300 chambers and 250 halls. Thebes, in Egypt, presents ruins 27 miles round. Athens was 25 miles round, and contained 350,000 citizens and 400,000 slaves. The Temple of Delphos was so rich in donations that it was plundered of $500,000, and Nero carried away 200 statues. The walls of Rome were 13 miles round.

THE FATHER OF THE CENOBITES.

St. Antony, surnamed the Great, or Anthony of Thebes, the father of monachism, was born about the year 251 A.D., at Koma, near Heraklea, in Upper Egypt. His parents were both wealthy and pious, and bestowed upon him a religious education. Having sold his possessions, and distributed the proceeds among the poor, he withdrew into the wilder-

ness, where he disciplined himself in all these austerities which have hallowed his memory in the Catholic Church and made him the model of monastic life. When thirty years of age, he penetrated farther into the desert, and took up his abode in an old ruin on the top of a hill, where he spent twenty years in the most rigorous seclusion; but, in 305 he was persuaded to leave his retreat by the prayers of numerous anchorites, who wished to live under his direction. He now founded a mastery, at first only a group of separate and scattered cells near Memphis and Arsinoe; but which nevertheless, may be considered the origin of cenobite life. After a visit to Alexandria in 311, he returned to his lonely ruin. In 355 the venerable hermit, then over a hundred years old, made a journey to Alexandria to dispute with the Arians; but feeling his end approaching, he retired to his desert home, where he died, 356 A. D. Athanasius wrote his life.

GIANTS AND DWARFS.

The most noted giants of ancient and modern times are as follows:

NAME.	PLACE.	HEIGHT, FEET.	PERIOD.
Goliath	Palestine	11.0	B. C. 1063.
Galbara	Rome	9.9	Claudius Cæsar.
John Middleton	England	9.3	A. D. 1578.
Frederick's Swede	Sweden	8.4	
Cujanus	Finland	7.9	
Gilly	Tyrol	8.1	
Patrick Cotter	Cork	8.7	1806.
Chang Gow	Pekin	7.8	1880.

Many of the great men of history have been rather small in stature. Napoleon was only about 5 ft. 4 in., Wellington was 5 ft. 7 in. One of the greatest of American statesmen, Alexander H. Stephens, never exceeded 115 pounds in weight, and in his old age his weight was less than 100 pounds.

The more notable human mites are named below:

NAME.	HEIGHT, INCHES.	DATE OF BIRTH.	PLACE OF BIRTH.
Count Borowlaski	39	1739	Warsaw.
Tom Thumb (Chas. S. Stratton)	31	1837	New York.
Mrs Tom Thumb	32	1842	New York.
Che-Mah	25	1838	China.
Lucia Zarate	20	1863	Mexico.
General Mite	21	1864	New York.

THE COLOSSEUM.

The Flavian amphitheater at Rome, known as the Colosseum from its colossal size, was begun by Vespasian, and finished by Titus 80 A.D., ten years after the destruction of Jerusalem. It was the largest structure of the kind, and is fortunately also the best preserved. It covers about five acres of ground, and was capable of seating over eighty thousand spectators. Its greatest length is six hundred and twelve feet, and its greatest breadth five hundred and fifteen, the corresponding figures for the Albert Hall in London being two hundred and seventy and two hundred and forty. On the occasion of its dedication by Titus, five thousand wild beasts were slain in the arena, the games lasting nearly a hundred days. The exterior is about one hundred and sixty feet in height, and consists of three rows of columns, Doric, Ionic, and Corinthian, and, above all, a row of Corinthian pilasters. Between the columns there are arches, which form open galleries throughout the whole building; and between each alternate pilasters of the upper tier

there is a window. Besides the *podium*, there were three tiers or stories of seats, corresponding to the external stories. The first of these is supposed to have contained twenty-four rows of seats; and the second, sixteen. These were separated by a lofty wall from the third story, which contained the populace. The *podium* was a gallery surrounding the arena, in which the emperor, the senators, and vestal virgins had their seats. The building was covered by a temporary awning or wooden roof, the *velarium*. The open space in the center of the amphitheater was called *arena*, the Latin word for sand, because it was covered with sand or sawdust during the performances.

EXHIBIT OF LOCAL NAMES.

There are more than twenty-seven hundred counties in the United States. Of these, ten per cent. are named after presidents, and thirty-five per cent. after Americans who have not been presidents (1890).

1. Counties, etc., named from presidents:

Twenty-seven counties named Washington, besides cities and towns innumerable; 43 Jefferson; 21 Jackson; 17 Lincoln, Madison, and Monroe; 12 Polk; 10 Grant; 9 Adams and Harrison; 4 Garfield, Pierce, and Van Buren.

2. Counties, etc., named from Americans who have not been presidents:

Boone, Calhoun, Clay, Hancock, Putnam, Randolph, Scott, Webster and many more.

3. The following names are extravagant enough to hinder any place from rising into a bishopric. Only fancy a dignified clergyman signing himself "Yours faithfully, John ———," followed by one of the following names:

Alkaliburg, Bleeder's Gulch, Bloody Bend, Boanerges Ferry, Breeches Fork, Bludgeonsville, Bugville, Butter's Sell, Buried Pipe, Cairoville, Clean Deck, Daughter's Loss, Euchreville, Eurekapolis, Eurekaville (!), Fighting Cocks, Good Thunder, Hell and Nails Crossing, Hezekiahville, Hide and Seek, Jack Pot, Joker, Murderville, Nettle Carrier, Numaville, Peddlecake, Poker Flat, Pottawattomieville, Plumpville, Roaring Fox, Sharper's Creek, Skeletonville Agency, Soaker's Ranche, Spottedville, Starvation, Stuck-up-Canon, Thief's End, Tombstone, Ubet, Villa Realville, Yellow Medicine, Yuba Dam, etc.

WASHINGTON AND EDUCATION.

A fact long lost sight of is that George Washington himself, the "Father of his Country" was also among the first of its great benefactors to the cause of higher education. Quite recently attention has been directed to the following clause in his last will and testament:

"It has always been a source of serious regret with me to see the youth of the United States sent to foreign countries for the purpose of education, often before their minds were formed, or they had imbibed any adequate ideas of the happiness of their own. My mind has not been able to contemplate any plan more likely to affect the measure than the establishment of a university in a central part of the United States, to which the youths of fortune and talent from all parts thereof may be sent for the completion of education, and where they may be enabled to free themselves in a proper degree from those local prejudices and habitual jealousies, which, when carried to excess, are never-failing sources of disquietude to the public mind and pregnant of mischievous consequences to this country. Under these impressions:

"Item—I give and bequeath, in perpetuity, the fifty shares which I hold in the Potomac Company, toward the endowment of a university;

and, until such seminary is established, and the funds arising on these shares shall be required for its support, my further will and desire is that the profit accruing therefrom shall, whenever the dividends are made, be laid out in purchasing stock in the Bank of Columbia, or some other bank, at the discretion of my executors, or by the Treasurer of the United States for the time being, until a sum adequate to the accomplishment of the object is obtained; of which I have not the smallest doubt before many years pass away, even if no aid or encouragement is given by the legislative authority, or from any other source."

This noble bequest has been absorbed, it appears, into Uncle Sam's capacious treasury, and at five per cent compound interest would now amount to about five million dollars. It is therefore entirely fitting that our Senators should be urging, after a lapse of ninety-three years, its employment in pursuance of the testator's will on behalf of the youth of his well-beloved country.

THE WORLD'S SEVEN WONDERS.

The seven wonders of the world are: The Pyramids, the Colossus of Rhodes, Diana's Temple at Ephesus, the Pharos of Alexandria, the Hanging Gardens at Babylon, the Statue of the Olympian Jove, and the Mausoleum by Artemisia at Halicarnassus. The Pyramids are numerous, and space forbids anything like even a list of them. The great piles were constructed of blocks of red or synetic granite, and of a hard calcareous stone. These blocks were of extraordinary dimensions, and their transportation to the sites of the pyramids and their adjustment in their places, indicate a surprising degree of mechanical skill. The Great Pyramid covers an area of between twelve and thirteen acres. The masonry consisted originally of 89,028,000 cubic feet, and still amounts to about 82,111,000 feet. The present vertical height is 450 feet, against 479 feet originally; and the present length of the sides is 746 feet, against 764 feet originally. The total weight of the stone is estimated at 6,316,000,000 tons. The city of Rhodes was besieged by Demetrius Poliorcetest King of Macedon, but, aided by Ptolemy Soter, King of Egypt, the enemy was repulsed. To express their gratiude to their allies and to their tutelary deity, they erected a brazen statue to Apollo. It was 105 feet high, and hollow, with a winding staircase that ascended to the head. After standing fifty-six years, it was overthrown by an earthquake, 224 years before Christ, and lay nine centuries on the ground, and then was sold to a Jew by the Saracens, who had captured Rhodes, about the middle of the seventh century. It is said to have required nine hundred camels to remove the metal, and from this statement it has been calculated its weight was 720,000 pounds. The Temple of Diana, at Ephesus, was built at the common charge of all the Asiatic states. The chief architect was Chersiphon, and Pliny says that 220 years were employed in completing the temple, whose riches were immense. It was 425 feet long, 225 feet broad, and was supported by 125 columns of Parian marble (sixty feet high, each weighing 150 tons), furnished by as many kings. It was set on fire on the night of Alexander's birth by an obscure person named Erostratus, who confessed on the rack that the sole motive which prompted him was the desire to transmit his name to future ages. The temple was again built, and once more burned by the Goths in their naval invasion, A.D. 256. The colossal statue of Jupiter in the temple of Olympia, at Elis, was by Phidias. It was in gold and ivory, and sat enthroned in the temple for 800 years, and was finally destroyed by fire

about A.D. 475. From the best information, it is believed that the Mausoleum at Halicarnassus was a rectangular building surrounded by an Ionic portico of thirty-six columns, and surmounted by a pyramid, rising in twenty-four steps, upon the summit of which was a colossal marble quadriga with a statue of Mausolus. The magnificent structure was erected by Artemisia, who was the sister, wife, and successor of Mausolus.

THE WORLD'S NOBLEST PARK.

The Yellowstone National Park extends sixty-five miles north and south and fifty-five miles east and west, comprising 3,575 square miles, and is 6,000 feet or more above sea level. Yellowstone lake, twenty miles by fifteen, has an altitude of 7,788 feet. The mountain ranges which hem in the valleys on every side rise to the height of 10,000 to 12,000 feet, and are always covered with snow. This great park contains the most strking of all the mountains, gorges, falls, rivers, and lakes in the whole Yellowstone region. The springs on Gardiner's River cover an area of about one square mile, and three or four square miles thereabout are occupied by the remains of springs which have ceased to flow. The natural basins into which these springs flow are from four to six feet in diameter and from one to four feet in depth. The principal ones are located upon terraces midway up the sides of the mountain. The banks of the Yellowstone river abound with ravines and canons, which are carved out of the heart of the mountains through the hardest rocks. The most remarkable of these is the canon of Tower Creek and Column Mountain. The latter, which extends along the eastern bank of the river for upward of two miles, is said to resemble the Giant's Causeway. The canon of Tower Creek is about ten miles in length, and is so deep and gloomy that it is called "The Devil's Den." Where Tower Creek ends the Grand Canon begins. It is twenty miles in length, impassable throughout, and inaccessible at the water's edge, except at a few points. Its rugged edges are from 200 to 500 yards apart, and its depth is so profound that no sound ever reaches the ear from the bottom. The Grand Canon contains a great multitude of hot springs of sulphur, sulphate of copper, alum, etc. In the number and magnitude of its hot springs and geysers, the Yellowstone Park surpasses all the rest of the world. There are probably fifty geysers that throw a column of water to the height of from 50 to 200 feet, and it is stated that there are not fewer than 5,000 springs; there are two kinds, those depositing lime and those depositing silica. The temperature of the calcareous springs is from 160 to 170 degress, while that of the others rises to 200 or more. The principal collections are the upper and lower geyser basins of the Madison river and the calcareous springs on Gardiner's River. The great falls are marvels to which adventurous travelers have gone only to return and report that they are parts of the wonders of this new American wonderland.

MARVELS OF OLD EGYPT.

PYRAMIDS.—The great pyramid of Gizeh is the largest structure of any kind ever erected by the hand of man. Its original dimensions at the base were 764 feet square, and its perpendicular height in the highest point is 488 feet; it covers four acres, one rood and twenty-two perches of ground, and has been estimated by an eminent English architect to have cost not less than £30,000,000, which in United States currency would be about $145,200,000. Internal evidences prove that

the great pyramid was begun about the year 2170 B.C., about the time of the birth of Abraham. It is estimated that about 5,000,000 tons of hewn stones were used in its construction.

SPHINX.—The word sphinx is from the Greek and means the strangler, and was applied to a fabled creature of the Egyptians, which had the body of a lion, the head of a man or an animal, and two wings attached to its sides. In the Egyptian hieroglyphs the sphinx symbolized wisdom and power united. It has been supposed that the fact that the overflow of the Nile occurred when the sun was in the constellations Leo and Virgo gave the idea of the combinations of form in the sphinx, but this idea seems quite unfounded. In Egypt the reigning monarch was usually represented in the form of a sphinx. The most remarkable sphinx is that near the pyramids at Gizeh. It is sculptured from the rock, masonry having been added in several places to complete the form. It is 172½ feet long by 53 feet high, but only the head of this remarkable sculpture can now be seen, the rest of the form having been concealed by the heaped-up sands of the desert.

OBELISKS.—The oldest of all the obelisks is the beautiful one of rosy granite which stands alone among the green fields upon the banks of the Nile, not far from Cairo. It is the gravestone of a great ancient city which has vanished and left only this relic behind. The city was the Bethshemesh of the Scriptures, the famous On, which is memorable to all Bible readers as the residence of the priest of Potipherah, whose daughter, Assenath, Joseph married. The Greeks called it Heliopolis.

CLEOPATRA'S NEEDLE.—The two obelisks known as Cleopatra's Needles were set up at the entrance of the Temple of the Sun, in Heliopolis, Egypt; by Thothmes III., about 1831 B.C. We have no means of knowing when they were built, or by whom, except from the inscriptions on them, which indicate the above time. The material of which they were cut is granite, brought from Syene, near the first cataract of the Nile. Two centuries after their erection Rameses II. had the stones nearly covered with carving setting out of his own greatness and achievements. Twenty-three years before Christ, Augustus Cæsar moved the obelisks from Heliopolis to Alexandria and set them up in the Cæsarium, a palace, which now stands, a mere mass of ruins, near the station of the railroad to Cairo. In 1819 one of these obelisks was presented by the Egyptian Government to England, but as no one knew how to move them, it was not taken to London until 1878. Subsequently the other obelisk was presented to the United States.

The work of moving this great Egyptian obelisk from Alexandria to New York was managed by Commander H. H. Gorringe, of the United States Navy. The officer reached Alexandria October 16, 1879, and at once began to work with one hundred Arabs, who completed the excavation of the obelisk's pedestal by removing 1,730 cubic yards of earth in about twenty days. The machinery for lowering the monolith was then attached, and the block was laid in a horizontal position. Within the foundation and steps of the pedestal were found stones and implements engraved with emblematic designs, and some delay was caused in order that these might be taken up very carefully to be placed in exactly the same position in the pedestal when re-erected in New York. The obelisk was removed to the wharf and upon the steamer waiting for it, by means of cannon-balls rolling in metal grooves. The shaft, pedestal, and steps of the obelisk were removed separately, the entire mass weighing 1,470 tons.

THE WORLD AND ITS WAYS.

'Tis pleasant, through the loopholes of retreat,
To peep at such a world; to see the stir
Of the great Babel, and not feel the crowd:
To hear the roar she sends through all her gates,
At a safe distance, where the dying sound
Falls a soft murmur on th' uninjur'd ear.
—COOPER.

A MYRIAD QUESTIONS ANSWERED.

Lincoln was assassinated April 14, 1865.

Rome was founded by Romulus, 752 B.C.

Gold was discovered in California in 1848.

Chinese history begins from the year 3000 B.C.

Ignatius Loyola founded the order of Jesuits, 1541.

First authentic use of organs, 755; in England, 951.

The German Empire was reestablished January 18, 1871.

Egyptian pottery is the oldest known; dates from 2,000 B. C.

First photographs produced in England, 1802; perfected, 1841.

First life insurance, in London, 1772; in America, Philadelphia, 1812.

Electric light was invented by Lodyguin and Kossloff, at London, 1874.

War was declared with Great Britain, June 19, 1812; peace, February 18, 1815.

First public schools in America were established in the New England States about 1642.

Postage stamps first came into use in England in the year 1840; in the United States, in 1847.

The highest range of mountains is the Himalayas, the mean elevation being from 16,000 to 18,000 feet.

The largest inland sea is the Caspian, between Europe and Asia, being 700 miles long and 270 miles wide.

Alma Mater (bounteous mother), is a familiar term applied by university men to their own particular university.

The Sombrero (Spanish, from *Sombra*, "shade"), is a broad-brimmed felt hat, originally Spanish, but common throughout North and South America.

An oak grows 2 ft. 10½ in. in 3 years. An elm in 3 years grows 8 ft 8 in.; a beach, 1 ft. 8 in.; a poplar, 6 ft.; a willow, 9 ft. 3 in.

The largest desert is Sahara, in Northern Africa. Its length is 3,000 miles and breadth 900 miles; having an area of 2,000,000 square miles.

The largest suspension bridge is the Brooklyn. The length of the main span is 1,595 feet 6 inches. The entire length of the bridge is 5,989 feet.

Bowstring, the string of a bow, is a name specifically used for an old Turkish mode of execution, the offender being strangled by means of a bowstring.

The sweetest singer is the nightingale; then come the linnet, the lark, sky-lark and wood-lark. The mocking bird has the greatest powers of imitation.

Crèches are nurseries to which mothers can send their children whilst they go to work. They were started first in France, 1844, and in England, 1863.

An ornament or knot of ribbon or rosette of leather, worn either as a military or naval decoration, or as the badge of a political party, is called a Cockade.

The nine great public schools of England are Eton, Harrow, Rugby, Winchester, Westminster, Shrewsbury, Charterhouse, St. Paul's and Merchant Taylors'.

Cross-buns are small cakes especially prepared for Good Friday, and in many towns of England cried about the streets on the morning of that day as "hot cross-buns."

Cricket is supposed to have been played in England in the fourteenth century. The first English team visited Australia, 1861, and the first Australian team visited England, 1878.

The term crofter is commonly used in Scotland to designate a small tenant of land who derives a substantial portion of his livelihood from cultivation or the raising of live-stock.

A poison used by some of the South American Indians for putting on the points of their arrows, is called curari. Animals killed with it may be eaten, however, without injury.

Dead reckoning is the method of reckoning a ship's position by calculating by the log how far she has run, making allowance for drift, leeway, etc., without an observation of the stars.

The ancient inhabitants of Jutland were called Cimbri. They made serious incursions into Italy, but were utterly routed by the Romans, 101 B. C., and were afterwards merged in the Saxons.

A canton is a division of territory, constituting a separate government or state, as in Switzerland; or, as in France, a collection of communes, forming a subdivision of an arrondissement.

It is claimed that crows, eagles, ravens and swans live to be 100 years old; herons, 50; parrots, 60; pelicans and geese, 50; skylarks, 30; sparrow hawks, 40; peacocks, canaries and cranes, 24.

The term "Cockney" is a familiar name for a Londoner, the earlier meaning of which was a foolish, effeminate person, or a spoilt child. The original meaning is very obscure, and various accounts are given of its origin.

Cremation is a term signifying the reduction of the dead human body to ashes by fire, which was a very early and widespread usage of antiquity. There are nine crematories in the United States.

Almeh, Alme, or Almai (Arabic *ălim*, "wise," "learned"), a class of Egyptian singing girls in attendance at festivals, entertainments, or funerals. The Ghawazee, or dancing girls, are of a lower order.

A splendid thing of fancy or hope, but wholly without any real existence, is called a "castle of Spain." So *Greek Kalends* means "never," because there were no such things as "Greek Kalends."

The camel is a caisson-like apparatus for rendering a vessel navigable in shoal water. It was invented by the Russian engineer De Witte (1790-1854), and is often used between Kronstadt and St. Petersburgh.

Chalet is the French-Swiss name for the wooden hut of the Swiss herdsmen on the mountains; but is also extended to Swiss dwelling-houses generally, and to picturesque and ornate villas built in imitation of them.

The origin of the game of billiards is uncertain. Some suppose that it was invented by Henrique Devigne in 1571. Slate tables were introduced in 1827. Shakspeare makes Cleopatra invite her companion to billiards.

A dais is the raised platform at the upper end of ancient dining halls, also the high table of the hall itself. The name is also applied to a seat with a canopy or high wainscot back for the occupants sitting at the high table.

It is a common Asiatic custom for the bridegroom to give chase to the bride, either on foot, horseback, or in canoes. If the bridegroom catches the fugitive, he claims her as his bride, otherwise the match is broken off.

Rows of arches supported by columns, either having an open space of greater or less width behind them, or in contact with masonry, are called "Arcades." The arcade in Gothic corresponds to the colonnade in classical architecture.

Cuddy is a name first applied in East India trading ships to a cabin under the poop, where the men messed and slept. The same name was afterwards given to the only cabin in very small vessels, and sometimes to the cooking-room.

The bungalow is a species of house usually occupied by Europeans in the interior of India, and commonly provided for officers' quarters in cantonments. Bungalows are properly of only one story, with a veranda, and a pyramid roof, generally of thatch, although tiles are sometimes substituted.

Cock-fighting was a sport common among both the Greeks and the Romans, as to-day it is in India, the Malay countries, and Spanish America. In England it flourished for fully six centuries, and, though forbidden by law, is still practiced among the populace of British and American cities.

Cribbage, a game at cards, probably of English origin, is played with a pack of fifty-two cards; the scores accrue in consequence of certain combinations in play, hand, and crib (for an account of which see any treatise on the game). The scores are marked on a cribbage board pierced with holes.

The word cañon literally means a "tube," a "cannon," and is the name given in western North America to a deep gorge or river ravine between high precipitous cliffs. One of the best examples is the far-famed Cañon of the Colorado.

Round Robin is the designation of a protest in writing, having the subscribers' names written in the form of a circle, so that no name appears first on the list. The custom is said to have originated amongst the officers of the French army.

Black and white beans or stones were used in very ancient times by the Greeks and Romans for voting at trials, the white acquitting and the black condemning. From this arose the modern custom of casting white and black balls at club and other elections.

The familiar term Blouse is the French name for a loose, sacklike over-garment somewhat answering to the English smock-frock. France is pre-eminently the country of blouses, ordinarily blue, worn not only by the country-people, but by workmen in towns.

A term applied to an intense admiration of the First Napoleon and his *régime* was Chauvinism. It is now applied to the political party in France which has for its object the aggrandisement of the Republic. It may be called an equivalent term to the English *Jingoism*.

In the social and economic sense of the word, co-operation generally means the association of work-people for the management of their own industrial interests, in store, workshop, or other undertaking, and the equitable distribution of profits among those who earn them.

A curious punishment in vogue amongst the Chinese, Turks and Persians, is that called the "Bastinado." The offender is thrown on his face, his feet fastened to a long stick, by which they are held with the soles upwards, and blows are then made on the soles with a cane.

Clubs are organizations of persons of similar professions, politics, or tastes for the promotion of some object. Many clubs have played an important part in history and some of those now existing in the great cities have a well-defined influence on manners, politics, and progress.

In 1877 the newspaper *Nationale* of Paris had ten pigeons which carried dispatches daily between Versailles and Paris in fifty to twenty minutes. In November, 1882, some pigeons, in face of a strong wind, made the distance of 160 miles from Canton Vaud to Paris in 6½ hours, or 25 miles per hour.

Derby Day is the day on which the racing for the stakes instituted by Lord Derby in 1780 takes place on Epsom Downs, England. It is a great holiday for Londoners, and all classes are to be seen jostling together. The procession of people returning in the evening is a great sight, but, owing to the greater number traveling by rail, is less so than formerly. It is generelly held on the Wednesday following Trinity Sunday.

The total number of newspapers published in the world at present is estimated at about 40,000, distributed as follows: United States, 15,000; Germany, 5,500; Great Britain, 5,000. France, 4,092; Japan, 2,000; Italy, 1,400; Austria-Hungary, 1,200; Asia, exclusive of Japan, 1,000; Spain, 850; Russia, 800; Australia, 700; Greece, 600; Switzerland, 450; Holland, 300; Belgium, 300; all others, 1,000. Of these about half are printed in the English language.

A small money-gift to persons in an inferior condition on the day after Chistmas, is termed a Christmas-Box, which is hence popularly called Boxing-day. The term, and also the custom, are essentially English, though the making of presents at this season and at the New Year is of great antiquity.

Silver spoons whose handles ended in figures of the apostles, a common baptismal present in the sixteenth and seventeenth centuries, were called Apostle Spoons. The fashion has been revived in America in the custom of presenting "Souvenir" spoons on returning from a journey to a place of uncommon interest.

Following are the society titles of wedding anniversaries: First, cotton; second, paper; third, leather; fifth, wooden; seventh, woolen; tenth, tin; twelfth, silk and fine linen; fifteenth, crystal; twentieth, china; twenty-fifth, silver; thirtieth, pearl; fortieth, ruby; fiftieth, golden; seventy-fifth, diamond.

Suttee was a usage long prevalent in India, in accordance with which on the death of her husband the faithful widow burned herself on the funeral pyre along with her husband's body, or, if he died at a distance, was burned on a pyre of her own. The practice was in use in India as early as the times of the Macedonian Greeks.

Charivari is the name given in the middle ages to an assemblage of rag-a-muffins, armed with tin kettles, pans and fire shovels, who gathered, in the dark, outside the house of an obnoxious person to torment him by their hideous noise. The practice was denounced by the Council of Trent but still lingers in France and elsewhere.

Hue and cry is a phrase derived from the old process of pursuit with horn and voice, used in old English law to describe the pursuit of felons. Whoever arrested the person pursued was protected; and it was the duty of all persons to join in a hue and cry. The *Hue and Cry*, a police gazette for advertising criminals, was established in 1710.

A corsair is a pirate or sea-robber, and especially any of those rovers who in former times cruised from the Barbary ports, as Algiers, Tunis or Tripoli, and became the terror of merchantmen in the Mediterranean and the Atlantic Ocean, ravaging the coasts and seizing shipping as far north as Cornwall, Baltimore in Cork, and even Iceland.

In Italy, where the term originated, and in the continental watering places, the casino is a place where musical or dancing soirées are held, containing a conversation-room, billiard-room, and rooms for other kinds of amusement, as well as small apartments where refreshments may be had. In England a dancing saloon is sometimes termed a casino.

The invention of chess is attributed to Palamedes, about 680 B.C., though also attributed to the Hindus. It is a game of skill played with figures on a chequered board. It continues to be a favorite with all civilized nations and chess-clubs have long been established in the chief cities. An international chess congress was held at London in 1851.

Carol was originally a term for a dance, or for songs intermingled with dance, came afterwards to signify festive songs, particularly such as were sung at Christmas. In England the practice of singing Christmas carols was widely spread as early as the fifteenth century, to which date belong many of the carols printed in the collections of Ritson, Wright and Sandys.

Shillelagh is the cudgel carried by the conventional Irishman, with which he is supposed to delight to play upon the heads of his friends on occasion. The name is borrowed from the once famous oak-forest of Shillelagh in the southwest corner of County Wicklow, which in Rufus' day furnished "cobwebless beams" for the roof of Westminster Hall.

The bilge is that part of the bottom of a ship nearest to the keel, and always more nearly horizontal than vertical. A ship usually rests on the keel and one side of the bilge when aground. The name of *bilge-water* is given to water which finds its way into the bilge or lowest part of a ship, and which, when not drawn off by the pump, becomes dirty and offensive.

A man walks 3 miles an hour; a slow river flows 3 miles an hour; a fast river, 7 miles; a trotting horse, 7 miles; a moderate wind blows 7 miles; sailing vessels, 10 miles; steamboats, 18 miles; a running horse, 20 miles; a storm, 36 miles; a hurricane, 80 miles; sound, 743 miles; a rifle ball, 1,000 miles; light, 192,000 miles a second: electricity, 288,000 miles a second.

The game at cards called *Besique*, is played with a double pack, in which the objects are principally to promote in the hand certain combinations which, when "declared," entitle the holder to score, and to win certain cards of a particular value. There are practically no restrictions in the game; it is not necessary to follow suit; and two, three, or four players may engage in it.

Salmagundi is a word of uncertain origin, unless it be derived from the Countess Salmagondi, lady of honor to Marie de' Medici and the inventor of the dish; for salmagundi is a dish of minced meat, seasoned with pickled cabbage, eggs, anchovies, olive-oil, vinegar, pepper, and similar ingredients. In an applied sense the words means a pot-pourri, a medley, a miscellany.

The proletariate used to denote the lowest and poorest classes of the community. It is derived, through the French, from the Latin *proletarii*, the name given in the census of Servius Tullius to the lowest of the centuries, who were so called to indicate that they were valuable to the state only as rearers of offspring. The word has come much into use in the literature of socialism.

The truck system is the system of paying wages in goods instead of money. Owing to the numerous abuses arising from this system it was abolished in Great Britain by the Act of 1831, which provided wages should be paid in money. As the result of a commission which sat in 1870, the previous Act was amended by the Act of 1887. The same system has prevailed to a large extent in the mining districts of the United States, and still exists in a few places.

Seraglio is an Italian word meaning "enclosure" (from *sera*, "a bolt"), once used in English for any enclosure such as the Jews' Ghetto at Rome, but now restricted to mean a harem or suite of women's apartment, apparently from a confusion with the similar but totally distinct Persian (and Turkish) word *serai*, "a king's court," "palace," also "a caravanserai. The Seraglio (*eski serai*, "old palace"), the ancient residence of the sultan at Constantinople, stands in a beautiful situation, where Stamboul juts farthest into the Bosphorus, and encloses within its walls a variety of mosques, gardens, and large edifices, the chief of which is the Harem.

A popular game of ball much played in Canada and recently introduced into this country, is Lacrosse. It had its origin in a game of the native Indians. Lacrosse is played by twenty-four persons equally divided into two sides. The object of the game is similar to that of football. The implements used are a ball and a curved stick (the *crosse*) with a catgut net stretched at the end.

The cornwallis is a sort of mummers' procession once held in the United States to commemorate the struggle for independence, typified by the surrender at York Town in 1781. Prior to this Cornwallis made himself formidable to the Americans in the battle of Brandywine, by the reduction of Charleston, and his victories at Camden and Guilford. The term and practice are alike now obsolete.

The term claque is the name given to an institution for securing the success of a play or performance, by bestowing upon it preconcerted applause, and thus giving the public, who are not in the secret, a false notion of the impression it has made The claque is of great antiquity, having been in use in the time of Nero, but now prevails chiefly in French theatres. The paid applauders are called "claqueurs."

The frugal Scottish dish, brose, is made by pouring boiling water, milk, or the liquor in which meat has been boiled, on oatmeal, and mixing the ingredients by immediate stirring. Butter may be added, and sweet milk when the brose is made with water. It is *kail-brose*, *water-brose* or *beef-brose*, according to the liquid used. *Athole-brose*, a famous Highland cordial, is a compound of honey and whisky.

The charade is a form of amusement which consists in dividing a word of one or more syllables into its component syllables, or into its component letters, predicating something of each; and then, having reunited the whole, and predicated something of that also, the reader or listener is asked to guess the word. The *acted* charade is a presentation of the parts of the problem in dramatic form, usually as a parlor pastime.

Curfew was a bell rung in early days in England, and long previously in other countries, the object of which was to warn the people to cover up their fires and retire to rest. The time for ringing these bells was sunset in summer, and about eight o'clock in winter; and certain penalties were imposed upon those who did not attend to the signal. The prevention of fires was the original purpose, but the name has passed into literature as a synonym for nightfall.

The history of the Great Mogul Diamond runs back to B.C. 56, but little is known of it till the fourteenth century, when it was held by the rajah of Malwa. Later on it fell into the hands of the sultans of Delhi, after their conquest of Malwa. Tavernier tells us he saw it among the jewels of Aurengzebe, and says in the rough state it weighed 793⅝ carats. The Shah Djihan sent it to Hortensio Borgio, a Venetian lapidary, to be cut, when it was reduced to 186 carats.

The habit of eating human flesh as food, known as Cannibalism, or Anthropophagy, is widely spread at the present moment among many of the lower races, but has also not infrequently held its place even among peoples at a comparatively high level of culture. There is perhaps no quarter of the globe which has been free from what appears to our eyes a practice essentially so degrading to human nature, but one hardly so repellent to minds that hold no very exalted notions of the inherent superiority of the human animal.

A horse will travel 400 yards in 4½ minutes at a walk; 400 yards in 2 minutes at a trot; 400 yards in 1 minute at a gallop. He can carry 250 pounds 25 miles in 8 hours. An average draught horse can draw 1,600 pounds 23 miles on a level road, weight of carriage included. The average weight of a horse is 1,000 lbs., and his strength is equal to 5 men. A horse will live 25 days on water without solid food; 17 days without eating or drinking; but only 5 days on solid food without drinking.

Australians of the colony of Victoria give the name of "Black Thursday" to Thursday, February 6, 1851, when the most terrible bush fire known in the annals of the colony occurred. It raged over an immense area. One writer in the newspapers of the time said that he rode at headlong speed for fifty miles, with fire raging on each side of his route. The heat was felt far out at sea, and many birds fell dead on the decks of coasting vessels. The destruction of animal life and farming stock in this conflagration was enormous.

Jeunesse Dorée ("gilded youth"), a party name given to those young men of Paris who, during the French Revolution, struggled to bring about the reaction or counter-revolution after Robespierre's fall (27th July, 1794). Other nicknames bestowed upon the same party were *Muscadins* ("scented darlings") and *Petits-Maitres* ("elegants"). The term *jeunesse dorèe* is still in use to designate young men about town, who always go elegantly dressed, have the air of spending money, and live a butterfly life of enjoyment and pleasure.

The first English sparrow was brought to the United States in 1850, but it was not until 1870 that the species can be said to have firmly established itself. Since then it has taken possession of the country. Its fecundity is amazing. In the latitude of New York and southward it hatches, as a rule, five or six broods in a season, with from four to six young in a brood. Assuming the average annual product of a pair to be twenty-four young, of which half are females and half males, and assuming further, for the sake of computation, that all live, together with their offspring, it will be seen that in ten years the progeny of a single pair would be 275,-716,983,698.

The socialistic society called Brook Farm, had its *locale* in the vicinity of Boston. Every member contributed to the general fund or paid his quota in manual or other work. The idea was suggested by Margaret Fuller, but the society was organized by the Rev. W. H. Channing. The members boarded in common, dressed most economically, bought at their own stores, and reduced the price of living to the lowest point. The evening were spent in intellectual amusements or social gatherings. The speculation was an utter failure, and after six years the "Farm" was broken up. Emerson often visited the Farm, and Hawthorne lived there for twelve months.

The township, or vill, the oldest proprietary and political unit of the Germanic races was an organized self-acting group of families exercising ownership over a definite area, the mark. The oldest English manors are coterminous with townships; the parish, a later division than the township, and originally purely ecclesiastical, is assumed to be equivalent to the township if there is no evidence to the contrary. In the United States the word is variously used (1) of a subdivision of a county; (2) the corporation composed of the inhabitants of such area; or sometimes (3) of municipal corporations only less fully organized and with fewer powers than a city.

The apartments in which Indian women are secluded, corresponding to the *harem* in Arabic-speaking Moslem lands is called the zenana. In India the Mahommedan women are much in the same position as the women in the other less bigoted Mahommedan countries. Amongst those of the Hindu faith the women of all castes are more or less secluded, especially among the well-to-do. Till about 1860, when zenana missions were organized in Bengal by Mr. Fordyce, Christian women were not allowed to enter a Hindu zenana. Now thousands of Hindu ladies are taught by British, American and native Christian women, some of whom are completely trained medical missionaries.

Punishment by death was originally the form of punishment for all felonies; it is now restricted to cases of murder. Several attempts have been made in England to abolish it. Capital punishment has been abolished in the following European countries: *Belgium* (1863), *Switzerland* (1874), *Roumania* (1864), *Holland* (1879). In Sweden, Denmark, North Germany, Austria, France, and Bavaria there exists unwillingness to enforce capital punishment. In several States in the United States—*e.g.*, Michigan, Wisconsin, Rhode Island, and Maine—imprisonment for life has been substituted for capital punishment. In New York electrocution has been adopted as a mode of punishment.

A favorite amusement of the "good old times" with a certain regiment quartered at Kilkenny, was to tie two cats together by the tails, swing them over a line, and watch their ferocious attacks upon each other in their struggles to get free. It was determined to put down this cruel "sport"; and one day, just as two unfortunate cats were swung, the alarm was given that the colonel was riding up post haste. An officer present cut through their tails with his sword and liberated the cats, which scampered off before the colonel arrived. Another story is that two cats fought in a saw-pit so ferociously that each swallowed the other, leaving only the tails behind to tell of the wonderful encounter.

In the early ages of society, almost everywhere, it was looked upon as the duty of the next of kin as the avenger of blood to avenge the death of a murdered relative; but among some primitive peoples, as the modern Bedouins, as among the ancient Anglo-Saxons, the right is annulled by compensation. The Mosaic law did not set aside this universal institution of primitive society, but placed it under regulations, prohibiting the commutation of the penalty of death for money, and appointing *cities of refuge* for the involuntary manslayer. The wilful murderer was, in all cases whatever, to be put to death without permission of compensation. The nearest relative, whose duty it was to hunt down the murderer, was called *Goël*, the "redeemer" or "avenger."

Many scholars contend that a great part of Europe must have been brought into cultivation by means of village communities. A clan of settlers took a tract of land, built their huts thereon, and laid out common fields, which they cultivated in common as one family. The land was divided out every few years into family lots, but the whole continued to be cultivated by the community subject to the established customs as interpreted in the village council by the sense of the village elders. This may yet be seen in the villages of Russia, and even in some parts of England may still be traced the ancient boundaries of the great common field, divided lengthwise into three strips (one fallow, the two others in different kinds of crop), and again crosswise into lots held by the villagers.

Ghee (*Ghi*) is a kind of clarified butter used in many parts of India, and generally prepared from the milk of buffaloes. The fresh milk is boiled for an hour or more; it is then allowed to cool, and a little curdled milk, called dhye, is added to promote coagulation. The curdled mass is churned for half an hour; some hot water is then added, and the churning continued for another half hour, when the butter forms. When the butter begins to become rancid, which is usually the case after a few days, it is boiled till all the water contained in it is expelled, and a little dhye and salt, or betel-leaf, is added; after which it is put into closed pots to be kept for use. It is used to an enormous extent by the natives of many parts of India, but is seldom relished by Europeans.

The vigilance societies include not only regulators and other extreme exponents of lynch law, but also the illegal associations which spring up from time to time in all parts of the country for the compulsory improvement of local morals, and the punishment of those who either refuse or fail sufficiently to reform their lives. Such organizations as the White Caps, at home in the eastern and central states, have for their professed objects the suppression of vice and idleness; they send formal warnings to those citizens whom they consider to be neglectful of their homes, too partial to card playing, drinking, etc.; and if this warning be disregarded, inflict such punishment as whipping, destruction of property, etc. The methods of the modern White Caps are the same as those of the Ku-Klux Klan.

University extension has for its object the provision of "the means of higher education for persons of all classes, and of both sexes engaged in the regular occupations of life." This movement commenced with the University of Cambridge in 1872, and was subsequently taken up by Oxford University, the London Society for the extension of University Teaching, Dublin University, Owens College, Manchester, the Scottish Universities, the University of Sydney, New South Wales, and the Chautauqua Home Reading Club in the United States. In 1890 Cambridge, Oxford, and the London Society had two hundred and twenty-seven centers, seventy-nine lectures, and 40,336 students attending lectures. The lecture-study system was organized in the United States at the University of Pennsylvania. Other institutions, notably the University of Chicago and the University of Wisconsin have engaged in the work, and many centers for lectures and study in history, science, art, and literature have been formed.

The Koh-i-noor, *i.e.*, "Mountain of Light," one of the largest diamonds in the world, came into the possession of Ala-u-din soon after 1300. It fell to Baber in 1526, and subsequently to Mahommed Shah, great-grandson of Aurengzebe, who kept it hidden in his turban; but when Nadir Shah took possession of Delhi, Mahommed had to give the diamond to the conqueror. It passed in succession to Shah Shuja, and when driven from Cabul he carried it to Lahore, when Runjeet Sing got possession of it and had it set in a bracelet, 1813. After the annexation of the Punjaub by the English the crown jewels of Lahore were confiscated, and the Koh-i-noor was presented to Queen Victoria by the East India Company and delivered into her hands June 3, 1850. In 1889, in a most insolent letter, Runjeet Sing demanded its restitution. Its weight was 186½ carats. It was exhibited in the Great Exhibition of 1851, and valued at 140,000*l*. By order of the Queen it was cut into a brilliant by Herr Voorsanger, whereby the weight was reduced to 106$\frac{1}{16}$ carats.

The "rule of the road" in the United States is "turn to the right," in England it is the reverse. The rule holds in this country in the case where two vehicles going in opposite diections meet. When one vehicle overtakes another the foremost gives way to the left and the other passes by on the "off side," and when a vehicle is crossing the direction of another it keeps to the left and crosses in its rear. These two rules are the same in this country and in England, and why the rule concerning meeting vehicles should have been changed it is impossible to say. We find this point of difference noted by all authorities, but no reason for it is ever suggested. Probably, as it is easier to turn to the right than to the left, it was adopted as the more preferable custom in some of the early colonies, and in due time became embodied in local law, and thus was handed down to later time.

The Molly Maguires was an Irish secret society which during the ten years preceding 1877 terrorized the coal regions of Pennsylvania. The name was imported from Ireland, where it had been adopted by a branch of the Ribbonmen, whose outrages by night were perpetrated in female disguise. The object of the organization in Pennsylvania appears to have been to secure for its members, as far as possible, the exclusive political power in the eastern part of the State. Murders were committed in the open day, though much more usually by night; and the terror of the society was on all the coal country until, in 1876–77, a number of the leaders were convicted and executed, mainly by the evidence of a detective named McParlan, who had acted for three years as secretary of the Shenandoah division.

Capacity of the largest public buildings in the world: Coliseum, Rome, 87,000; St. Peter's, Rome, 54,000; Theatre of Pompey, Rome, 40,000; Cathedral, Milan, 37,000; St. Paul's, Rome, 32,000; St. Paul's, London, 31,000; St. Petronia, Bologna, 26,000; Cathedral, Florence, 24,300; Cathedral, Antwerp, 24,000; St. John Lateran, Rome, 23,000; St. Sophia's, Constantinople, 23,000; Notre Dame, Paris, 21,500; Theatre of Marcellus, Rome, 20,000; Cathedral, Pisa, 13,000; St. Stephen's, Vienna, 12,400; St. Dominic's, Bologna, 12,000; St. Peters, Bologna, 11,400; Cathedral, Vienna, 11,000; Gilmore's Garden, New York, 8,443; La Scala, Milan, 8,000; Auditorium, Chicago, 7,000; Mormon Temple, Salt Lake City, 8,000; St. Mark's, Venice, 7,500; Spurgeon's Tabernacle, London, 6,000; Bolshoi Theatre, St. Petersburg, 5,000; Tabernacle (Talmage's), Brooklyn, 5,000; Music Hall, Cincinnati, 4,824.

The acclimated word boulevard is simply the name given in France to a broad street or promenade planted with rows of trees. Originally it was applied to the bulwark portion of a rampart, then to the promenade laid out on a demolished fortification. The boulevards of Paris are the most famous. The line from the Madeleine to the Bastille became a walk in the days of Louis XIV., and then a street. But many so-called recent boulevards in Paris and elsewhere are simply new and handsome streets, planted with trees, and have no relation to old fortifications at all. Some parts of them present a very dazzling spectacle, and, as a whole, they afford a striking exhibition of the life and character of the French capital in all the different classes of society. The *Boulevard de la Madeleine, des Capucines*, and *Montmartre* are the most notable. The Thames Embankment is a boulevard in the usual sense of the term. In the United States the term is applied to all streets on which no traffic teams are permitted.

In feudal times villeins were a species of serfs who cultivated the portion of the manor reserved by the feudal lord for himself. They were bound to the soil; they could not leave the manor, and their service was compulsory; but they were allowed by the feudal lord to cultivate portions of land for their own use. These lands, which they held "at the will of the lord, according to the custom of the manor"—custom which was in such case entered in the roll of the court-baron—frequently passed from father to son, until a prescriptive right in them was acquired; and the villeins, whose sole title was an authenticated copy of these entries, came in time to be called tenants by copy of court-roll, and their tenures copyholds. Villeinage was never formally abolished in England, but it ceased to exist in the sixteenth century.

Hari-kari is a term applied to the curious Japanese system of official suicide, obsolete since 1868. The Japanese estimated the number of such suicides at 500 per annum. All military men, and persons holding civil offices under the government, were held bound, when they committed an offence, to disembowel themselves. This they performed in a solemn and dignified manner, in presence of officials and other witnesses, by one or two gashes with a short sharp sword or dagger 9½ inches long. Personal honor having been saved by the self-inflicted wound, the execution was completed by a superior executioner, who gave the *coup de grâce* by beheading the victim with one swinging blow from a long sword. Japanese gentlemen were trained to regard the hari-kari as an honorable expiation of crime or blotting out of disgrace.

The most dreadful earthquake on record is that which, November 1, 1775, destroyed the city of Lisbon, Portugal. The only warning the inhabitants received was a noise like subterranean thunder, which, without any considerable interval, was followed by a succession of shocks which laid in ruins almost every building in the city, with a most incredible slaughter of the inhabitants (60,000). The bed of the river Tagus was in many places raised to the surface, and vessels on the river suddenly found themselves aground. The waters of the river and the sea at first retreated and then immediately rolled violently in upon the land, forming a wave over forty feet in elevation. To complete the destruction a large quay, upon which great numbers of the people had assembled for security, suddenly sank to such an unfathomable depth that not one body ever afterwards appeared at the surface.

TITLES, OFFICES AND DIGNITIES.

The word police comes from *polis*, a city.
Knight in the original Saxon means "a boy."
Beg, not bey, is the title of a Turkish governor.
Oliver Cromwell's title was The Lord Protector.
In Scotland the mayor of a town is called provost.
Duke means a leader and was first a military title.
Lieutenant means literally "holding the place of."
Garter-King-at-Arms is the chief herald of England.
Lords of Appeal, in England, are made peers for life.
"The grand old gardener" is a poet's title for Adam.
The Order of the Garter is Britain's highest knighthood.

Earl means an elder. Its continental equivalent is Count.

A marquis was originally the governor of a frontier province.

Lictors were the servants who attended on Roman chief magistrates.

Mandarin is a Portuguese, not a native, title for Chinese high officials.

The Great Seal of England is the symbol of the Lord Chancellor's office.

Originally a sheik was an Arab chief; now applied to Moslem dignitaries.

The rank of admiral was first created in this country (1866) to honor Farragut.

Masters in Chancery were originally the assistants to the Lord Chancellor.

The King-Maker was a title given to Richard Nevil, Earl of Warwick (1420–1471).

Prince Rupert (1619–1682) was called the Mad Cavalier because of his reckless daring.

Lords Spiritual is the title of the bishops who have seats in the British House of Lords.

Incas was the name given by the ancient Peruvians to their kings and princes of the blood.

The Master of the Rolls is a British Judge of Chancery who keeps the records of that court.

His small stature and original army rank caused Napoleon to be called The Little Corporal.

Robert of Normandy, father of William the Conqueror, well earned the title of Robert the Devil.

The Duke of Marlborough (1650–1722) was dubbed Corporal John by the soldiers who served under him.

Sahib, an Arabic word signifying "lord" is the title of courtesy bestowed by Hindûs upon Europeans.

The Iron Duke and Marshal Forward were both popular titles of the Duke of Wellington, the victor of Waterloo.

Peers of the House of Lords are generally designated Lords Temporal in contradistinction to the Lords Spiritual.

The title applied to the younger princes of the royal houses of Spain and Portugal is *Infante*. A princess is styled *Infanta*.

Titles of courtesy are those titles allowed to the relatives of British peers by social usage, but to which they have no legal right.

An officer appointed by a king or nobleman, or by a corporation, to perform domestic and ceremonial duties, is called a Chamberlain.

Overbury says: The man who has nothing to boast of but his illustrious ancestry is like a potato—the best part of him is under ground.

The Order of the Bath was constituted by Henry IV. in 1399. It comprises Knights Grand Cross, Knights Commanders and Companions.

A commoner is anyone in England under the rank of nobility; also a member of the House of Commons. At some of the great schools and at Oxford, a class of students eating at the common table are likewise termed commoners.

Archduke and archduchess are titles now borne by all the sons and daughters of an emperor of Austria, and by their descendants through the male line.

The grade of titles in Great Britain stands in the following order from the highest: A prince, duke, marquis, earl, viscount, baron, baronet, knight.

Scholarship, a benefaction, generally of the annual proceeds of a bequest permanently invested, paid for the maintenance of a student at a university or at a school.

A chargé d'affaires is a fourth-class diplomatic agent, accredited not to the sovereign, but to the department for foreign affairs; he also holds his credentials only from the minister.

Defender of the Faith was the title first given to Henry VIII. by pope Leo X., for a volume against Luther, in defense of the seven sacraments. The original volume is in the Vatican.

Advocatus Diaboli is one appointed to advance every conceivable reason why a person whose name is submitted for canonization should not be admitted into the calendar of the saints.

The East Indian term Begum is a title of honor equivalent to "princess," conferred on the mothers, sisters or wives of native rulers. The Begum of Oudh is well known in Indian history.

The name Darbyites is often applied to the Plymouth brethren from their principal founder, John Nelson Darby (1800-82), of whose collected writings thirty-two volumes have appeared (1867-83).

The old name for Christmas, Yule, is still used in Scotland and the north of England, and retained in the term "yule-log." It was originally, in England and Scandinavia, the festival of the winter solstice.

The Imperial Order of the Crown of India was instituted January 1, 1878. The Queen, the Princess of Wales, the princesses of the blood royal, and distinguished ladies, British and Indian, constitute the order.

Chouans were bands of royalist Breton peasants organized during the French Revolution, 1792, by three brothers, named Cottereau. The bands got their name from *Chat-huant*, screech owl, whose cry was their signal. They were suppressed in 1830.

The familiar term "boss" is a modified form of the Dutch *baas*, master, and used in the United States for an employer of labor, or a local political chief; and in Britain is a slang word, or is employed humorously. To "boss" is to play the master.

The commandant is the officer, of whatever rank, in command of a fortress or military post of any kind. The title is also given to an officer commanding a larger body of troops than is proper to his rank, as captain-commandant, lieutenant-commandant.

The cardinal is the highest dignitary in the Roman Catholic Church, next to the popes, who are selected from the cardinals. The cardinals are divided into *three classes*, six bishops, fifty priests and fourteen deacons, never more than seventy who constitute the Sacred College.

A Châtelaine is the wife of the châtelain or commander of a feudal castle. A *chaîne châtelaine* or simply *châtelaine*, a chain such as a lady châtelaine might wear, is a chain depending from the waist, to which are attached keys, scissors, and other appliances of housewifery.

Crest is a heraldic figure or ornament, which in its original use surmounted the helmet. Though often popularly regarded as the most important part of the heraldic insignia of a family, it is, in the eyes of heralds, merely an accessory, without which the bearing is complete.

Ambassadors in early days received no salary, the honor of serving a monarch being deemed more than a compensation for their services. Nor did they ever tender pay for their lodging at a foreign court, but instead expected to receive at their departure presents of considerable value.

Chevalier was a honorary title given, especially in the eighteenth century, to younger sons of French noble families. Their indolence and impecuniosity not seldom led them into devious ways, so that the term *chevalier d' industrie* became a synonym for highwayman or swindler.

A Spanish order instituted (1170) by Ferdinand II., to stop the inroads of the Moors, was that of San Yago, or St. James. Proof of noble descent through four generations was required from the knights. The political power of the order ceased in 1522, and it has since been solely an order of nobility.

The title of Count is of considerable antiquity. We find it used in mediæval and modern Europe. Earl is in one view supposed to be analogous to it, the Latin equivalent of each being the same, and the wife of an earl being a countess. In French the title is *comte*, Italian, *conte*, and in Spanish, *condé*.

Envoy is a diplomatic minister of the second order—*i.e.* inferior in rank to an ambassador. Like the latter, he receives his credentials immediately from the sovereign, though he represents not his prince's personal dignity, but only his affairs. The envoy is thus superior in rank to the Chargé d'Affaires.

In the United States navy, commanders have a rank next below that of captain, and next above that of a lieutenant-commander, and rank with lieutenant-colonels in the army. The commander in the British navy is an officer next under a captain in rank, and serves either as second in command in a large ship, or in independent command of a smaller vessel.

Sovereign, in politics, is the person or body of persons in whom the supreme executive and legislative power of a state is vested. In limited monarchies sovereignty is in a qualified sense ascribed to the king, who though the supreme magistrate, is not the sole legislator. A state in which the legislative authority is not trammeled by any foreign power is called a sovereign state.

The King of France: So the monarchs of France were called till October, 1789, when the National Assembly ordained that Louis XVI. should not be styled "King of France," but "King of the French." The royal title was abolished in France in 1792, but was restored in 1814. When Louis Philippe was invited in 1830 to take on himself the government, he was styled "King of the French."

The Mufti is a "doctor of the law" in the Mussulman religion. He interprets both the text and ideas of the Korân. The Grand Mufti, called the "Sheik-ul-Islam," resides at Constantinople, and is head of the lawyers and priests or ulêmas. His ordinances, called *felfas*, must be blindly obeyed. It is the Grand Mufti who girds on the sultan's sword at his coronation. Every town has its mufti.

Khedive, a title granted in 1867 by the Sultan to his tributary the Viceroy of Egypt, and since then used by the latter as his official title. The word (pronounced as a dissyllable) is derived from Persian *khidîv*, and means "sovereign." It is therefore a more dignified title than the former one of *vali*, "viceroy."

Commander-in-chief is the highest staff appointment in the British army. After the death of the Duke of Wellington in 1852, this title, which had been borne by him for many years, was allowed to lapse. It was recently again bestowed on the Duke of Cambridge, in honor of his fifty years' service in the army.

Admiral is the title of the highest rank of naval officers. The office originated with the Arabs in Spain and Sicily, and was adopted with the name by the Genoese, French and the English under Edward III. as "amyrel of the se." Admirals are generally of three classes—admirals, vice-admirals and rear-admirals.

In India, and especially in Bengal, the Zemindar is the landed proprietor, who pays the government land-revenue, as opposed to the "ryot," the actual cultivator of the soil. Under the Mogul government the zemindar was originally merely a government official, charged with the collection of the land revenue, and with no rights in the land. These he acquired under the Permanent Settlement of Lord Cornwallis.

Sizar, the name of an order of students at Cambridge and Dublin universities, so called from the allowance of victuals (*size*) made to them from the college buttery. Duties of a somewhat menial kind, such as waiting upon the fellows at table, were originally required of the sizars, but these have long since gone into disuse. At Oxford there was formerly a somewhat similar order of students denominated Servitors.

Dauphin was the title of the eldest son of the French king, and originally that of the sovereign lords of the province of Dauphiné, who bore a *dolphin* as their crest. The last of these, the childless Humbert III., in 1343 bequeathed his possessions to Charles of Valois, grandson of Philippe VI. of France, on condition that the eldest son of the king of France should bear the title of Dauphin of Vienne, and govern the province.

Czar (more properly *Tsar*, *Tzar*, or *Zar*), the title of the emperors of Russia. The word occurs early in Old Slavonic, equivalent to king or *kaiser*, and is connected with the Latin *Cæsar*, continued in the Roman empire as a title of honor long after the imperial house itself had become extinct. In the Slavonic Bible the word *basileus* is rendered by czar; Cæsar (*kaisar*) by Cesar. In the Russian chronicles also the Byzantine emperors are styled czars, as are also the khans of the Mongols who ruled over Russia.

The grandees of Spain—"grandes de España de primera clase"—are in some sort peers of the kingdom who enjoy certain privileges at court, though they are not, nor have ever been, legislators by right of birth. They are supposed to be by courtesy cousins of royalty, and they can always enter the palace and claim an audience of the sovereign at any time, while the greatest of Spanish untitled statesmen and generals must ask for and obtain an audience before they can enter the royal ante-chambers. Only the field marshals, the prelates, and the knights of the Golden Fleece enjoy the same footing as the grandees of the first class.

Sheikh (Arab., "elder," "aged person"), a title applied to the chieftain of an Arab tribe, to the principal preacher in a Mahommedan mosque, to the head of a religious order, and to a learned man or a reputed saint of Islam. The Sheikh ul-Islam at Constantinople is the head of the Mahommedan church; he is possessed of very great influence and power. Sheikh al-Jebel (Old Man of the Mountain) was the name of the chief of the Assassins.

Shâh (Persian, "king," "monarch," "prince"), the general title of the supreme ruler in Persia, Afghanistan and other countries of southern and central Asia. The sovereign, however, may, and outside of Persia frequently does, decline the title, assuming in its place that of Khân, an inferior and more common appellation. The same title can also be assumed by the shah's sons, and upon all the princes of the blood the cognomen Shâh-zâda ("king's son") is bestowed.

Originally the word consul was applied to the two chief magistrates of the Roman republic. Later it was used of the chief magistrates of France after the Revolution when Bonaparte was First Consul. Now it is applied to that officer whom the government maintains in a foreign country for the protection of its trade and vindication of the rights of its merchants, and to whom the further duty is assigned of keeping the home government informed of all facts bearing on the commercial interests of the country.

The calif is the successor of Mahommed the prophet, both in temporal and spiritual power. At first there was but one calif, whose empire was called the califate, which for three centuries exceeded the Roman empire in extent; but in 970 there were three califates, viz. one at Bagdad, one at Cairo, and one at Cordĕva. In 1031 the califate of Cordĕva ceased. In 1158 the calif of Bagdad fled to Egypt before the sword of the Monguls. In 1517 the Turks conquered Egypt, and the sultan thus became the one and only calif.

In England the higher nobility consists of the five temporal ranks of the peerage—duke, marquis, earl, viscount and baron—who have seats in the House of Lords. The dignity was originally territorial. It is hereditary; but by the Appellate Jurisdiction Act, 1876 (amended 1887), a certain number of life peers have been created, styled Lords of Appeal in Ordinary. In England only the head of a noble family is noble; on the Continent all the members of a noble family are noble. Baronets, who belong to the lower nobility, were first created by James I. (1611).

General: (1) The term is applied in the army to the rank next below *field-marshal*. There are three grades in the British service—viz., General, Lieutenant-General, and Major-General. (2) In the United States the rank of general, a higher rank than had before existed, was created by act of congress in 1866, and conferred on General Grant. It was subsequently conferred on Sherman and on Sheridan. The highest rank held by Washington was that of lieutenant-general, which is also usually that of the general-in-chief of the army. There is, of course, but one lieutenant-general; and by law there can be but three major-generals and six brigadier-generals. The general's yearly pay is $13,500; the lieutenant-general's is $11,000; the major-general's, $7,500; the brigadier-general's, $5,000. In the militia of some of the states there are major-generals and brigadier-generals, and the title of general as a form of address is in the United States often given indiscriminately to those holding these ranks.

Sheriff, or shereef, designates a descendant of Mahommed through his daughter Fatima and Ali. The title is inherited both from the paternal and the maternal side, and thus the number of members of this aristocracy is very large among the Moslems. The men have the privilege of wearing green turbans, the women green veils, green being the prophet's color. Many of these sheriffs founded dynasties in Africa; the line which rules in Morocco boasts of this proud designation.

Promotion of officers by selection to a higher rank irrespective of there being any vacancies in its established numbers, is termed Brevet. A general promotion by Congress (July 6, 1812), authorized the President to confer brevet rank on officers of the army distinguished for valor, or of ten years' service in any one grade. Restricted by Act of Congress (April 16, 1818). On incorporation of Volunteers (March, 1863), it was decided that officers of the army of higher rank who had served with the Volunteers, might receive Volunteer brevet rank. In July, 1870, officers holding brevet commission were forbidden to wear any uniform except that of their actual rank, or to use any other title in official communications.

PREVIOUS WORLD'S FAIRS.

YEAR.	WHERE HELD.	ACRES BLDGS.	EXHIBITORS.	ADMISSIONS.	DAYS OPEN.
1851	London	21	17,000	6,039,195	144
1855	Paris	24½	22,000	5,162,330	200
1862	London	23½	29,000	6,211,103	171
1867	Paris	37	52,000	10,200,000	217
1873	Vienna	40	42,000	7,254,687	186
1876	Philadelphia	60	60,000	9,910,966	159
1878	Paris	60	52,000	13,000,000	494
1889	Paris	75½	60,000	32,354,111	183

REMARKABLE MODERN PLAGUES.

DATE.	PLACE.	DEATHS.	WEEKS.	DEATHS PER WEEK.
1656	Naples	380,000	28	10,400
1665	London	68,800	33	2,100
1720	Marseilles	39,100	36	1,100
1771	Moscow	87,800	32	2,700
1778	Constantinople	170,000	18	9 500
1798	Cairo	88,000	25	3,500
1812	Constantinople	144,000	13	11,100
1834	Cairo	57,000	18	3,200
1835	Alexandria	14,900	17	900
1871	Buenos Ayres	26,300	11	2,400

GREAT FAMINES OF HISTORY.

Walford mentions 160 famines since the eleventh century, namely, England, 57; Ireland 34; Scotland, 12; France, 10; Germany, 11; Italy, etc., 36. The worst in modern times have been:

COUNTRY.	DATE.	NO. OF VICTIMS.
France	1770	48,000
Ireland	1847	1,029,000
India	1866	1,450,000

Deaths from hunger and want were recorded as follows in 1879, according to Mulhall: Ireland, 3,789; England, 312; London, 101; France, 260. The proportion per 1,000 deaths was, respectively, 37.6, .6, 1.2, .3.

RULERS OF ALL NATIONS.

Country.	Ruler.	Born.	Acceded.	
Abyssinia	Menelek, *Emperor (or Negus)*	....	12 March,	1889
Afghanistan	Abdur Rahman Khan, *Amir*	1845		1880
Argentine Republic	Dr. Luis Saenz Pena, *President*	....	12 Oct.,	1892
Austria-Hungary	Francis Joseph, *Emperor*	1830	2 Dec.,	1848
Baluchistan	Mir Khodádal, *Khan*	...		1857
Belgium	Leopold II., *King*	1835	10 Dec.,	1865
Bokhara	Seid Abdul Ahad, *Amir*	...	12 Nov.,	1885
Bolivia	Don Aniceto Arce, *President*	....	15 Aug.,	1888
Brazil (United States of)	General Floriano Peixoto, *President*		23 Nov.,	1891
Bulgaria	Ferdinand of Saxe-Coburg, *Prince*	1861	7 July,	1887
Chile	Admiral Jorge Montt, *President*	1847	19 Nov.,	1891
China	Kuang Hsii, *Emperor*	1871	12 Jan.,	1875
Colombia	Rafael Nuñez, *President*	....	7 Aug.,	1886
Costa Rica	José J. Rodriguez, *President*	....	8 May.,	1890
Denmark	Christian IX., *King*	1818	15 Nov.,	1863
Dominican Republic	General Ulises Heureaux, *President*	....	1 Sept.,	1886
Ecuador	Don Condero, *President*	...	30 June,	1892
Egypt	Abbas Pasha, *Khedive*	1874	7 Jan.,	1892
France	Marie François Sadi Carnot, *President*	1837	3 Dec.,	1887
Germany	William II., *Emperor*	1859	15 June,	1888
Prussia	William II., *King*			
Bavaria	Otto, *King* (Prince Luitpold, *Regent*	1848	13 June,	1886
Saxony	Albert, *King*	1828	29 Oct.,	1873
Wurtemburg	William II., *King*	1848	6 Oct.,	1891
Baden	Frederick, *Grand Duke*	1826	5 Sept.,	1856
Hesse	Louis V., *Grand Duke*	1868	13 March,	1892
Anhalt	Frederick, *Duke*	1831	22 May,	1871
Brunswick	Prince Albrecht, *Regent*	1837	21 Oct.,	1885
Mecklenburg-Schwerin	Frederick Francis III., *Grand Duke*	1851	15 April,	1883
Mecklenburg-Strelitz	Frederick William, *Grand Duke*	1819	6 Sept.,	1860
Oldenburg	Peter, *Grand Duke*	1827	27 Feb.,	1853
Saxe-Coburg and Gotha	Ernest Albert, *Duke*	1844	29 Aug.,	1893
Waldeck-Pyrmont	George Victor, *Prince*	1831	15 May,	1845
Great Britain, Ireland, etc.	Victoria, *Queen, etc*	1819	20 June,	1837
Greece	George, *King*	1845	30 (18) Mr.	1863
Guatemala	Gen. José Maria Reina Barrios, *President*	....		1892
Hawaii	Interregnum	....		
Hayti	General L. M. F. Hyppolyte, *President*	....	17 Oct.,	1889
Honduras	General Leiva, *President*	....	1 Dec.,	1891
Italy	Humbert, *King*	1844	9 Jan.,	1878
Japan	Mutsu Hito, *Emperor (or Mikado)*	1852	13 Feb.,	1866
Liberia	J. J. Cheesman, *President*	....	7 Jan.,	1892
Luxemburg	Adolphus, *Grand Duke*	1817	23 Nov.,	1890
Madagascar	Ranavalona III., *Queen*	1861	13 July,	1883
Mexico	General Porfirio Diaz, *President*	....	1 Dec.,	1884
Montenegro	Nicholas, *Prince*	1841	14 Aug.,	1860
Morocco	Muleyel Hassan, *Sultan*	1831	25 Sept.,	1873
Nepaul	Prithivi Beer Bikram Shum Shere Jung Bahadur, *Maharaja*	1874		1881
Netherlands	Wilhelmina (a minor), *Queen*	1880	23 Nov.,	1890
Nicaragua	Dr. Robert Sacasa, *President*	....	1 March,	1891
Oman	Seyyid Feysal bin Turkee, *Sultan*	....	4 June,	1888
Orange Free State	Dr. F. W. Reitz, *President*	....	19 Dec.,	1888
Paraguay	Juan G. Gonzalez, *President*	....	25 Sept.,	1890
Persia	Nasir-ed-Din, *Shah*	1829	10 Sept.,	1848
Peru	Col. Remjio Morales Bermudez, *President*	1836	10 Aug.,	1890
Portugal	Dom Carlos, *King*	1863	19 Oct.,	1889
Roumania	Charles, *King*	1839	26 March,	1881
Russia	Alexander III., *Emperor*	1845	13 (1) Mr.,	1881
Salvador	General Carlos Ezeta, *President*	....	11 Sept.,	1890
Sarawak	Sir Chas. Johnson Brooke, G.C.M G., *Raja*	1829	11 June,	1868
Servia	Alexander (Obrenovitch), *King*	1876	6 March,	1889
Siam	Phrabat Somdet Phra Vühua, *King*	1853	1 Oct.,	1868
Spain	Alfonso XIII. (a minor), *King*	1886	17 May,	1886
Sweden and Norway	Oscar II., *King*	1829	18 Sept.,	1872
Switzerland	Walter Hauser, *President*	....	17 Dec.,	1891

RULERS OF ALL NATIONS.—*Concluded.*

COUNTRY.	Ruler.	Born.	Acceded.
Transvaal (S.A. Republic)	S. J. P. Paul Krüger, *President*	1821	April, 1883
Tripoli	Ahmed Rassim Pasha, *Governor-General*	....	Nov., 1881
Tunis	Sidi Ali Pasha, *Bey*	1817	28 Oct., 1882
Turkey	Abdul Hamid II., *Sultan*	1842	31 Aug., 1876
United States (America)	Grover Cleveland, *President*	1837	4 March, 1893
Uruguay	Dr. Julio Herrera y Obes, *President*	...	1 March, 1890
Venezuela	General Crespo, *Provisional President*	....	10 Oct., 1892
Zanzibar	Seyyid Ali, *Sultan*	....	13 Feb., 1890

AREA AND POPULATION OF THE CONTINENTS.

The following table shows the area, population, and density of population in each of the divisions of the earth:—

	Area: square miles.	Population.	Population per square mile.
Europe	3,797,410	357,851,580	94
Asia	17,039,066	825,954,000	48
Africa	11,518,104	168,499,017	14
Australasia	3,458,029	5,684,600	1·6
North America	7,952,386	88,386,084	11
South America	6,844,602	33,342,700	5
	50,609,597	1,479,717,981	29
Polar islands	1,689,834	11,170	—
Total	52,299,431	1,479,729,151	28

SALARIES OF THE CROWNED HEADS.

Austria-Hungary, Emperor of, $3,875,000.
Bavaria, King of, $1,412,000.
Belgium, King of, $660,000.
Denmark, King of, $297,775; and Crown Prince, $33,330.
Greece King of, $260,000, including $20,000 a year each from Great Britain, France and Russia.
Netherlands, King of, $250,000, also a large revenue from domains, and $62,500 for royal family, courts, and palaces.
Italy, King of, $2,868,000, of which $180,000 for family.
Norway and Sweden, King of $575,525.
Portugal, King of, $634,440.
Prussia, King of, $3,858,770; also a vast amount of private property, castles, forests, and estates, out of which the court expenditure and royal family are paid.
Roumania, King of, $237,000.
Russia, Czar of, has private estates of more than 1,000,000 square miles of cultivated land and forests, besides gold and other mines in Siberia. The annual income has been estimated at about $12,000,000.
Saxony, King of, $735,000.
Servia, King of, $240,000.
Spain, King of, $1,400,000, besides $600,000 for family.
Wurtemberg, King of, $449,050.

CROSSING THE LINE.

The first authentic account of the ordeal observed on board ship dates 1702. One sailor represents Neptune and another his wife Amphitrite; another his barber and the rest his suite. All dress in the most grotesque raiment they can obtain. A tarred topsail is formed into a bath, and a throne is provided for Neptune and his wife. Those midshipmen who have never crossed the line are then brought forth, while the men pour over them buckets of water, or play the fire hose into their faces. Their faces being tarred are scraped by the barber, and the victims are then soused into the bath provided. Here they are left to struggle out and make their escape as they best can. This horse-play is now almost entirely, and in most cases wholly abolished.

STATISTICS OF ALL THE CHIEF COUNTRIES.

COUNTRIES.	Population.	Sq. Miles.	Capitals.
British Empire	327,645,000	9,043,377	London.
China	353,241,969	4,468,750	Peking.
Russian Empire	108,787,244	8,457,289	St. Petersburg.
France and Colonies	65,894,242	1,167,239	Paris.
France	38,218,903	204,177	.....
Colonies	27,675,339	963,062	.....
United States	62,622,250	3,602,990	Washington.
German Empire	46,855,704	211,106	Berlin.
Prussia	28,313,833	134,467	Berlin.
Bavaria	5,416,180	29,291	Munich.
Saxony	3,129,168	5,789	Dresden.
Wurtemberg	1,994,849	7,531	Stuttgart.
Baden	1,600,839	5,803	Karlsruhe.
Alsace-Lorraine	1,563,145	5,602	.....
Hesse	956,170	2,965	Darmstadt.
Mecklenburg-Schwerin	575,140	5,137	Schwerin.
Hamburg	518,712	158	.....
Brunswick	372,580	1,425	Brunswick.
Oldenburg	341,250	2,479	Oldenburg.
Saxe-Weimar	313,668	1,387	Weimar.
Anhalt	247,603	906	Dessau.
Saxe-Meiningen	214,697	953	Meiningen.
Saxe-Coburg Gotha	198,717	760	Gotha.
Bremen	166,392	99	.....
Saxe-Altenburg	161,129	511	Altenburg.
Lippe	123,250	472	Detmold.
Reuss (younger line)	112,118	319	Gera.
Mecklenburg-Strelitz	98,371	1,131	Neu Strelitz.
Schwarzburg-Rud	83,939	363	Rudolstadt.
Schwarzburg-Son	73,623	333	S'nd'rsh'usen.
Lubeck	67,658	115	.....
Waldeck	56,565	433	Arolsen.
Reuss (elder line)	53,787	122	Greiz.
Schaumburg Lippe	37,204	131	Buckeburg.
Austro-Hungarian Empire	41,827,700	201,591	Vienna.
Japan	39,607,234	147,669	Tokio.
Netherlands and Colonies	33,042,238	778,187	The Hague.
Turkish Empire	32,000,000	1,731,280	Constantinople.
Italy	29,699,785	110,665	Rome.
Spain and Colonies	24,873,621	361,953	Madrid.
Brazil	14,000,000	3,219,000	Rio de Janeiro.
Mexico	11,530,041	751,700	Mexico.
Corea	10,519,000	85,000	Seul.
Congo State	8,000,000	802,000	.....
Persia	7,653,600	636,000	Teheran.
Portugal and Colonies	7,249,050	240,691	Lisbon.
Egypt *	6,806,381	494,000	Cairo.
Sweden and Norway	6,774,409	298,974	Stockholm.
Morocco	6,500,000	314,000	Fez.
Belgium	6,030,043	11,373	Brussels.
Annam †	6,000,000	106,300	Hue.
Siam	5,700,000	280,550	Bangkok.
Roumania *	5,376,000	46,314	Bucharest.
Argentine Republic	4 200,000	1,095.013	Buenos Ayres.
Colombia	4,000,000	331,420	Bogotá.
Afghanistan	4,000,000	279,000	Cabul.
Madagascar	3,500,000	230.000	Antananarivo.
Abyssinia	3,000,000	129.000	.....
Peru	2,970,000	405,040	Lima.
Switzerland	2,933,334	15,981	Berne.
Chili	2,665,926	256,860	Santiago.
Bolivia	2,300,000	472,000	La Paz.
Greece	2,187,208	24,977	Athens.
Denmark	2,172 205	14,789	Copenhagen.
Venezuela	2,121,988	566,159	Caracas.
Servia	2,096,043	18,757	Belgrade.
Bulgaria *	2,007,919	24,700	Sofia.

STATISTICS OF ALL THE CHIEF COUNTRIES.—*Concluded.*

COUNTRIES.	Population.	Sq. Miles.	Capitals.
Nepaul	2,000,000	56,800	Khatmandu.
Cochin-China	1,642,182	22,956	Saigon.
Oman	1,600,000	81,000	Muscat.
Guatemala	1,427,116	46,774	New Guatemala.
Ecuador	1,146,000	144,000	Quito.
Liberia	1,150,000	14,000	Monrovia.
Transvaal	800,000	110,193	Pretoria.
Uruguay	700,000	72,112	Montevideo.
Khiva	700,000	22,320	Khiva.
Salvador	651,130	7,228	San Salvador.
Hayti	550,000	29,830	Porte au Prince.
Paraguay	476,000	145,000	Asuncion.
Honduras	421,917	42,658	Tegucigalpa.
Nicaragua	400,000	51,660	Managua.
Dominican Republic	350,000	20,596	San Domingo.
Montenegro	245,380	3,486	Cetigno.
Costa Rica	213,785	19,965	San José.
Orange Free State	133,518	41,484	Bloemfontein.
Hawaii	86,647	6,587	Honolulu.

*Also enumerated with Turkish Empire. † Also enumerated with Colonies of France.

ALL THE FAMOUS DIAMONDS.

Following is an accurate list of the largest diamonds in the world:

CARATS (UNCUT).	CUT.	NAME.	POSSESSOR.
1680	*	Braganza	King of Portugal.
—	367	—	Rajah of Mattan. (Borneo.)
—	254	Star of the South	—
—	194	Orloff	Czar of Russia.
—	139½	Florentine	Empress of Austria.
—	138½	—	King of Portugal.
410	136¾	Pitt	King of Prussia
793⅛	106⅛	Koh-i-noor	Queen of England.
—	86	Shah	Czar of Russia.
—	82¼	Pigott	Messrs. Rundell and Bridge.
—	78	Nassac	Lord Westminster.
112	67⅛	Blue	—
—	53	Sancy	Czar of Russia.
88⅛	44½	Dudley	Earl of Dudley.
—	40	Pacha of Egypt	Khedive of Egypt.

THE SWEATING SYSTEM.

As the result of an informal census taken in England in 1884 by the Amalgamated Society of Tailors, it was discovered that fifteen thousand tailors, out of a total of twenty thousand were employed under the sweating system. A report by Mr. John Burnett, the labor correspondent of the Board, to the Board of Trade, on the subject of sweating in the East of London, was issued in 1887, and in 1888, on the motion of Lord Dunraven, a committee of the House of Lords was appointed to inquire into the sweating system of the East of London. The scope of the committee was on its report the same year, enlarged to take evidence on the sweating system in the United Kingdom generally. The committee was reappointed in 1889, and took evidence respecting the sweating system in numerous trades, and also in respect of government contracts. A report was presented in the House of Lords in 1890, establishing the fact that the sweating system prevailed in many trades, and that among its causes were the inefficiency of many of the workpeople, early marriages and the excessive supply of unskilled labor. Recommendations for parliamentary

interference were made, especially in respect of the improvement of the sanitary condition of many factories, workshops, and domestic workshops where work of a sweating character was performed. Additional inspectors with enlarged powers were also declared requisite. Of late attention has been called to the same practices in the large cities in our own country. A congressional committee has been investigating the matter with a view to legislation.

CASTE AMONG THE HINDOOS.

Caste is a term applied to the division into social classes in India. To each of these classes certain pursuits are limited by the Laws of Manu, B.C. 960. 1. The *Brahmans* or sacerdotal class, which "issued from the *mouth* of Brahma."

2. The *Chuttree* or military class, which "sprang from the *arm* of Brahma."

3. The *Bais* or mercantile class, which "sprang from the *thigh* of Brahma."

4. The *Sudras* or servile class, which "sprang from the *foot* of Brahma."

The *Pariahs* and *Chandalas* are nobodies, or worse, for it is pollution to be touched by such "scum of the earth."

HEIGHTS OF NOTED EDIFICES.

	FEET.
Eiffel Tower, Paris	989
Washington Monument	555
Pyramid, Cheops, Egypt	543
Cathedral, Cologne	511
" Antwerp	476
" Strasburg	474
Tower, Utrecht	464
Steeple, St. Stephen's, Vienna	460
Pyramid, Khafras, Egypt	456
St. Martin's Church, Bavaria	456
Chimney, Port Dundas, Glasgow	454
St. Peter's, Rome	448
Notre Dame, Amiens	422
Salisbury Spire, England	406
Cathedral, Florence	380
" Cremona	372
" Freiburg	367
St. Paul's, London	365
Cathedral, Seville	360
Pyramid, Sakkarah, Egypt	356
Cathedral, Milan	355
Notre Dame, Munich	348
Invalides, Paris	347
Parliament House, London	340
Cathedral, Magdeburg	337
St. Patrick's, New York	328
St. Mark's, Venice	328
Cathedral, Bologna	321
" Norwich, England	309
" Chichester, England	300
" Lincoln, England	300
Capitol, Washington	300
St. James' Cathedral, Toronto	316
Trinity Church, New York	283
Cathedral, Mexico	280
" Montreal	280
Campanile Tower, Florence	276
Column, Delhi	260
Cathedral, Dantzic	250
Porcelain Tower, Nankin	248
Custom House, St. Louis	240
Canterbury Tower, England	235
Notre Dame, Paris	232
Chicago Board of Trade	230
St. Patrick's, Dublin	226
Cathedral, Glasgow	225
Bunker Hill Monument	220
Notre Dame, Montreal	220
Cathedral, Lima	220
" Rheims	220
" Garden City, L.I.	219
St. Peter and Paul, Philadelphia	210
Washington Monument, Baltimore	210
Vendôme Column, Paris	153

LANGUAGE OF FLOWERS.

Around many flowers a consistent and well understood symbolism has gathered, but the Orientals have developed this into a perfect vehicle for communicating sentimental and amatory expressions of all degrees of warmth. In this manner a cluster of flowers can be made to express any sentiment, if care is taken in the selection.

If a flower is offered reversed, its original signification is contradicted and the opposite implied.

A rosebud divested of its thorns, but retaining its leaves, conveys the sentiment—"I fear no longer; I hope." Stripped of leaves and thorns, it signifies—"There is nothing to hope or fear."

A full blown rose, placed over two buds, signifies "Secrecy."

"Yes" is implied by touching the flower given to the lips; "No," by pinching off a petal and casting it away.

"I am" is expressed by a laurel leaf twined around the bouquet; "I have," by an ivy leaf folded together; "I offer you," by a leaf of Virginia creeper.

COMBINATIONS AND SYMBOLS.

Mignonette, Colored Daisy,	Your qualities surpass your charms of beauty.
Lily of the Valley, Ferns,	Your unconscious sweetness has fascinated me.
Yellow Rose, Broken Straw. Ivy,	Your jealousy has broken our friendship.
Scarlet Geranium, Passion Flower, Purple Hyacinth, Arbor Vitæ.	I trust you will find consolation through faith in your sorrow; be assured of my unchanging friendship.
Moss Rosebud, Myrtle,	A confession of love.
Columbine, Day Lily, Broken Straw, Witch Hazel, Colored Daisy,	Your folly and coquetry have broken the spell of your beauty.
White Pink, Canary Grass, Laurel,	Your talent and perseverance will win you glory.
Golden Rod, Monkshead. Sweet Pea, Forget-me-not.	Be cautious: danger is near; I depart soon: forget me not.

Arbor Vitæ.—Unchanging friendship.
Camelia, White.—Loveliness.
Candy-Tuft.—Indifference
Carnation, White.—Disdain.
China Aster.—Variety.
Clover, Four-Leaf.—Be mine.
Clover, White.—Think of me.
Clover, Red.—Industry.
Columbine.—Folly.
Daisy.—Innocence.
Daisy, Colored.—Beauty.
Dead Leaves.—Sadness.
Deadly Nightshade.—Falsehood.
Fern.—Fascination.
Forget-me-not.—Forget-me-not.
Fuchsia, Scarlet.—Taste.
Geranium, Horseshoe.—Stupidity.
Geranium, Scarlet.—Consolation.
Geranium, Rose.—Preference.
Golden-rod.—Be cautious.
Heliotrope.—Devotion.
Hyacinth, White.—Loveliness.
Hyacinth, Purple.—Sorrow.
Ivy.—Friendship.
Lily, Day.—Coquetry.
Lily, White.—Sweetness.
Lily, Yellow.—Gayety.
Lily, Water.—Purity of heart; elegance.
Lily of the Valley.—Unconscious sweetness.
Mignonette.—Your qualities surpass your charms.
Monkshead.—Danger is near.
Myrtle.—Love.
Oak.—Hospitality.
Orange Blossoms.—Chastity.
Pansy.—Thoughts.
Passion Flower.—Faith.
Primrose.—Inconstancy.
Rose.—Love.
Rose, Damask.—Beauty ever new.
Rose, Yellow.—Jealousy.
Rose, White.—I am worthy of you.
Rosebud, Moss.—Confession of love.
Smilax.—Constancy.
Straw.—Agreement.
Straw, Broken.—Broken agreement.
Sweat Pea.—Depart.
Tuberose.—Dangerous pleasures.
Thistle.—Sternness.
Verbena.—Pray for me.
White Jasmine.—Amiability.
Witch Hazel.—A spell.

END OF THE WORLD.

This ought to have occurred, according to Nicolas de Cusa, in 1704. He demonstrates it thus: The Deluge happened in the thirty-fourth jubilee of fifty years from the Creation (A.M. 1700), and therefore the end of the world should properly occur on the thirty-fourth jubilee of the Christian era, or A.D. 1704. The four grace years are added to compensate for the blunder of chronologists respecting the first year of grace.

The most popular dates of modern times for the end of the world, or what is practically the same thing, the Millennium, are the following:

1757, Swedenborg; 1836, Johann Albrecht Bengel, *Erklärte Offenbarung;* 1843, William Miller, of America; 1866, Dr. John Cumming; 1881, Mother Shipton.

It was very generally believed in France, Germany, etc., that the end of the world would happen in the thousandth year after Christ; and therefore much of the land was left uncultivated, and a general famine ensued. Luckily it was not agreed whether the thousand years should date from the birth or the death of Christ, or the desolation would have been much greater. Many charters begin with these words, *As the world is now drawing to its close.* Kings and nobles gave up their state: Robert of France, son of Hugh Capet, entered the monastery of St. Denis; and at Limoges, princes, nobles, and knights proclaimed "God's Truce," and solemnly bound themselves to abstain from feuds, to keep the peace towards each other, and to help the oppressed.

Another hypothesis is this: As one day with God equals a thousand years (*Psalm* xc. 4) and God labored in creation six days, therefore the world is to labor 6,000 years, and then to rest. According to this theory, the end of the world ought to occur A.M. 6000, or A.D. 1996 (supposing the world to have been created 4,004 years before the birth of Christ). This hypothesis, which is widely accepted, is quite safe for another century at least.

GREAT FLOODS AND INUNDATIONS.

Following is a list of the greatest floods of which modern history makes mention:

694 A.D. Japan; 780 sq. m. of Isle of Shikoku covered by sea.
968. Persian Gulf; many cities destroyed, and new islands formed by irruption of sea.
1098 or 1100. East of Kent inundated; Goodwin Sands formed.
1161 or 1165. Sicily; irruption of sea; thousands drowned.
1173. Holland; Zuider Zee much enlarged.
1219. Nordland, Norway; lake burst; 36,000 people perished.
1228. Friesland; invasion of sea; 100,000 people drowned.
1396. Holland; islands of Texel, Vlieland, and Wieringen separated from mainland, and Marsdiep, the channel between Texel and North Holland, formed.
1421 or 1446. Holland; 72 villages inundated, of which 20 permanently; about 100,000 persons drowned. Biebosch formed east of Dordrecht, and this town separated from mainland.
1521. Holland; 100,000 lives by an inundation.
1570. Holland; storm drove in the sea, destroying numerous villages and 20,000 people in Friesland.
1617. Catalonia, Spain; 15,000 perished in floods.
1642. China, at Kaifong; 300,000 drowned.
1646. Holland and Friesland inundated; loss of life 110,000.
1745. Peru; Callao destroyed by irruption of sea caused by earthquakes.
1767. England; irruption of sea on east coast.
1782. Formosa; west side of island submerged, and Taiwan destroyed.
1787-88. India, in Northwestern Provinces and Punjab; 15,000 lives lost by floods.
1791. Cuba; floods from excessive rain; 3,000 drowned.
1811. Hungary; 24 villages swept away by overflow of Danube.
1813. Austria, Hungary, Poland and Prussian Silesia; floods caused by rains; 4,000 perished in Poland, 6,000 in Silesia.
1824. St. Petersburg and Cronstadt, 10,000 lives lost from overflow of Neva.
1825. Denmark; sea broke through from North Sea to Limfjord, making northern Jutland an island; one-third of Friesland submerged by rising of sea and rivers.
1851. Northern China; Yellow River burst its banks, and made a new outlet into Gulf of Pechili.
1856. South of France; floods did damage to extent of $35,600,000.
1868. Peru; Arica and Iquique nearly destroyed by earthquake waves.
1874. United States: Mill River valley (Massachusetts) inundated by bursting of a dam; 144 drowned. Also floods in western Pennsylvania; 230 drowned.

1876. China; floods in northern provinces; in Bengal 200,000 persons perished from inundation of a tidal wave.
1883. Java and Sumatra; west coast of former and east coast of latter submerged by volcanic wave, new islands formed in Sunda Straits, whilst part of Krakatoa disappeared.
1887. China; floods in Ho-nan, caused by the Hoang-ho bursting its southern bank; millions of lives lost.
1889. Johnstown (Pennsylvania), United States; 10,000 lives lost from bursting of a reservoir

HISTORIC FIRES.

London, September 2-6, 1666.—Eighty-nine churches, many public buildings and 13,200 houses destroyed; 400 streets laid waste; 200,000 persons homeless. The ruins covered 436 acres.

New York, December 16, 1835.—600 buildings; loss, $20,000,000. September 6, 1839.—$10,000,000 worth of property.

Pittsburgh, April 10, 1845.—1,000 buildings; loss, $6,000,000.

Philadelphia, July 9, 1850.—350 buildings; loss, $1,500,000; 25 persons killed; 9 drowned; 120 wounded.

San Francisco, May 3-5, 1851.—2,500 buildings; loss, $3,500,000; many lives lost. June 22, 1851.—500 buildings; loss, $3,000,000.

Santiago (Spain), December 8, 1863.—A fire in the church of the Campania, beginning amid combustible ornaments; 2,000 persons killed, mostly women.

Charleston, S. C., February 17, 1865.—Almost totally destroyed, with large quantities of naval and military stores.

Richmond, Va., April 2 and 3, 1865.—In great part destroyed by fire at time of Confederate evacuation.

Portland, Me., July 4, 1866.—Almost entirely destroyed; loss, $15,000,000.

Chicago, October 8 and 9, 1871.—3½ square miles laid waste; 17,450 buildings destroyed; 200 persons killed; 98,500 made homeless. July 14, 1874.—Another great fire; loss, $4,000,000.

Great forest fires in Michigan and Wisconsin, October 8-14, 1871—2,000 lives lost.

Boston, November 9-11, 1872.—800 buildings; loss, $73,000,000. 15 killed.

Fall River, Mass., September 19, 1874.—Great factory fires; 60 persons killed.

Brooklyn Theater burned December 5, 1876.—300 lives lost.

Seattle and Spokane, Wash., 1889.—About $10,000,000 each.

ALL WHO EVER LIVED.

According to a recent writer, it is impossible to give any close figures on the number of persons who have lived on this earth. It is generally considered that one person in every thirteen dies each year. At this rate the population would be renewed every thirteen years. Assuming that the population of the world is 1,000,000,000 and that it has been 1,000,000,000 at any time during the last 6,000 years, we find that the population has been renewed about 461 times; that is, that 462,000,000,000 have lived on this earth since its creation. This, of course, is vastly in excess of the real number, for the world, so far as we can tell, is more thickly populated now than ever before. Probably if we were to cut those figures in two we should still be above the actual number, with a total of 231,000,000,000 persons.

RACES AND TRIBES OF MEN.

The human race,
Of every tongue, of every place,
Caucasian, Coptic or Malay,
All that inhabit this great earth,
Whatever be their rank or worth,
Are kindred and allied by birth,
And made of the same clay.
—LONGFELLOW.

FEATURES, TYPES AND STUDIES.

Ethnology treats of races.

Medicine studies individuals.

Ethnography is the description of peoples.

Philology inquires into the language of man.

The Guanches were the aborigines of the Canary Islands.

Sociology investigates the principles of human development.

Anthropology studies man as a whole and in his relations to other animals.

Blumenbach divided man into five races—Mongolian, Malay, American, Ethiopian and Caucasian.

The most influential of the people of Hungary are the Magyars. In language they are closely related to the Finns.

The Bible tells us that the differences in language of men began with the confusion of tongues at the tower of Babel.

The Calumet is the pipe of peace smoked by the North American Indians, both in their councils and on the conclusion of a peace.

Craniology or the study of the skull has proved a valuable though not entirely trustworthy aid in the investigation of racial differences.

Cyclopæan works are ancient structures of huge, unhewn and uncemented blocks of stone. Examples in Sicily, Peru and Ireland.

The three types of man differ much in temperament. The Ethiopian is sensuous, unintellectual, cheerful and even boisterous, but fitful.

The Lesghians are a Tartar race of the Eastern Caucasus, and form the majority of the people of Daghestan. They are Mahommedan in religion.

The Cimbri were the ancient inhabitants of Jutland, of disputed nationality. They made serious incursions into Italy, but were utterly routed by the Romans, 101 B. C., and were afterwards merged in the Saxons.

Borough-English was an ancient custom by which the youngest son inherits property instead of the eldest son. It is mentioned as early as 834.

The Huns were a fierce tribe of Asiatics. They invaded Hungary (376) and expelled the Goths, but were thoroughly beaten (451) at Chalons by Aetius.

In India there are separate classes of society called castes. They are the Brahmins, the military class, the commercial class, and the servile class or pariahs.

The study of man's speech is a study of man himself. His words originated in his wants and works and indicate to us his occupation and to some extent his character.

Anthropophagi is another name for cannibals. It is said that the Caribs were cannibals before the Spanish conquest, and that the term cannibal arose from that fact.

Cuvier and Talu, scientists, have combined the first three in Blumenbach's classification and consider the fundamental types of man as three —Ethiopic, Mongolic and Caucasic.

The original inhabitants of Borneo were called Dyaks. They were great pirates and practiced head-hunting, but modern civilization has nearly demolished those practices.

The full-blooded South African negro is remarkable for his extraordinary length of arm, the Aymara Indian of Peru for the surprising shortness of the corresponding member.

Land held by the community in Anglo-Saxon times was called Folcland. It could be let for a term to individuals, but reverted to the community on the expiration of that term.

Avebury stones are supposed to be the remains of Druidical structures at Avebury, in Wiltshire, and are the largest in England. They are upright stones of about seventeen feet in height.

The ancient inhabitants of the Crimea were called Cimmerians. In the "Odyssey" the Cimmerii were people living beyond the ocean in thickest gloom; hence "Cimmerian darkness."

Shamanism was the heathen religion of the Turanian races of Siberia. Its characteristic is a belief in magic, the shaman, or wizard-priest, being closely akin to the medicine-man of the Red Indians.

Coolies are Indian and Chinese laborers who emigrate to foreign lands. The American and European residents in the treaty ports of China apply the same term to the native laborers in their employ.

The system in Anglo-Saxon times by which communities were divided into tithings of ten houses, the holders of which were responsible for faults or crimes committed by any of them, was called "fraud pledge."

The Wends, a branch of the western Slavs, were in the sixth century a powerful race, extending from the Elbe to the Vistula, but they are now confined to the district known as Lusatia, partly in Prussia and partly in Saxony.

The Goorkhas are a tribe of mountaineers in Nepaul, India. Though small in stature, they are possessed of indomitable courage and bravery, having signally distinguished themselves in the campaign undertaken by the British in India.

The period during which stone implements, unpolished, were used by early man is called the Palæolithic Age. Contemporaneous with the Palæolithic Age were many mammals now extinct, as the cave bear, the woolly rhinoceros, etc.

The Celts were an ancient Aryan race formerly inhabiting Gaul. The name has been applied to the primitive races of Ireland, Scotland and Wales, but neither Greeks nor Romans regarded the British Isles as belonging to the Celtic world.

The Belgæ were German and Celtic tribes inhabiting the tract of country extending from the Atlantic to the Rhine, and from the Marne to the Seine. They were very valiant, and some of them were found in Kent and Sussex by Cæsar on his invasion of Britain.

The countries relatively richest in horses and horned stock are Argentine and Uruguay; Austria has the most sheep; Servia the greatest relative number of pigs to population. The poorest in horses is Italy; in cattle, Portugal; in sheep, Belgium; in hogs, Greece.

The people known as lake-dwellers gave rise to the term "Lacustrian Period," an extremely remote age when human habitations, for the sake of security, were built in the midst of lakes. Remains of such habitations exist in certain lakes of Switzerland, Scotland, Ireland, etc.

Brochs are prehistoric structures in Scotland resembling low circular roofless towers, with walls of great thickness of unhewn stones and enclosed by a narrow passage, chiefly in Orkney, Shetland, etc. The brochs of Mousa is a typical and the best preserved example.

The Mahrattas are a native Indian race which founded an empire in Central and Western India, 1674. After 1795, Scindia, Holkar and Berar became independent; the confederacy of Mahratta states came to an end in 1818, and all the chiefs became dependants of the British Crown.

In the Spanish province of Gerona a fairly pure type of the dwarf race of Morocco and the Atlas has been traced. These people average about 3½ feet in height, and are otherwise characterized by a yellow skin, broad, square faces, Mongolian eyes and red hair of a woolly texture.

A people now frequently heard of are the Bechuanas, a powerful and warlike race of the Kaffir stock, inhabiting a large tract of South Africa, north of Cape Colony. They are engaged in agriculture and the rearing of cattle. The greater part of the territory is under British influence.

By the law of Gavelkind the land of the father was, at his decease, divided among the sons; if there were no sons, it was divided among the daughters. After the Norman Conquest Gavelkind gave place to the feudal law of primogeniture, and was only observed in Kent and Wales.

A Scotch or Gaelic tribe formed of members of one family and their descendants is called a clan. It is supposed to have arisen in Scotland about 1008. The chiefs exercised jurisdiction as the fathers of the clans, but their legal and heritable jurisdiction was abolished in 1747, after the rebellion.

The Romans used frequently to be at war with the Volsci, an ancient people of Latium. Their chief city was Coriole, from which Caius Martius, who defeated them, obtained his name of Coriolanus (about 490 B. C.). They were again utterly defeated (389 B. C.) by M. Furius Camillus, the conqueror of Veii, and finally (*c.* 338 B. C.) were incorporated with the Roman people.

Scythians were a nomad race of Asia known to the ancient writers. The name bore two significations, meaning (1) the Scythians proper or Scolots, (2) all the nomad tribes (Sacæ, Sarmatians, Massagetæ, Scolots) who dwelt in the steppes from what is now Hungary to the mountains of Turkestan.

The name Moors was first applied to the inhabitants of Mauritania; afterwards to the inhabitants of the whole of Africa north of the Sahara and west of Tripoli. Now it is given to the people of Morocco, but it is sometimes loosely used as synonymous with Arab, Saracen, or even Mahommedan.

The Basques are descendants of the ancient Iberi, who occupied Spain before the Celts. They occupy the provinces of Biscay, Guipuzcoa, and Alava in Spain, and the departments of the Upper and Lower Pyrenees, Ariège, and Upper Garonne, and retain their ancient language, manners, and customs.

The Fire Ordeal was an ancient form of trial for persons of high rank in England and Germany, in which the accused had to walk barefoot over nine red hot ploughshares, or over red-hot cinders, or to carry a red-hot iron in his hand for a certain distance. If he escaped unhurt he was considered innocent.

Shire is the Anglo-Saxon equivalent of the Norman county. The Earl was originally the head of the shire, but his duties were gradually carried out by the Shire-reeve, as the king's representative in the shire, who levied the various dues, fines, etc., in the king's name, and acted as his legal representative.

In the fourth century B. C. the Goths were found inhabiting the coasts of the Baltic, and later the shores of the Black Sea, and north of the Lower Danube. Defeated and killed the Roman emperor, Decius (251). Claudius (269) defeated the Goths with great slaughter. Dacia ceded to the Goths (272) by Aurelian.

According to the Bible the Midianites were the descendants of Midian, son of Abraham by Keturah, inhabiting the country between the Red Sea and the plains of Moab. They were powerful at one time, but, with their allies the Amalekites, were completely routed by Gideon, and are seldom heard of afterwards.

The Chaldeans or Akkadians are a non-Semitic race who came originally from the mountain country of Elam, and were formerly the dominant people of Babylonia. One of the four great cities of Shinar was Accad. The Babylonians were indebted to the Sumero-Akkadians for their cuneiform writing, religion, and mythology.

The ancient sea-rovers of Scandinavia (Denmark, Norway and Sweden), or Northmen, called themselves Vikings (sea-kings). Their ravages extended from the eighth to the thirteenth centuries, and they formed permanent settlements in England, Ireland, Northern France, and Southern Italy. In France the name was contracted into Normans.

Closely related to the Sabines were the Samnites, who were long formidable rivals of the Romans, and were only subdued after three sanguinary wars, waged with little interruption from 343 B.C. to 290 B.C. The Samnites took a prominent part in the social war (90 B. C.), and espoused the cause of Marius against Sulla, by whom they were almost extirpated (82 B. C.).

Fire worship was established by Zoroaster amongst the Persians, who worshipped the sun, and held that the sacred fires of their temples and the sun were the especial places of the divine habitation. Fire worship is also practised by the Parsees. Among the early Hindus the sun was worshipped under the simulacrum of the god Agni and represented in the Vedas as the god of Fire Worship.

In the third century the Saxons, a Teutonic race, made numerous settlements on the coasts of Normandy and Brittany, thence called the "Saxon Shore." In the fifth century they laid the foundations of the Saxon kingdoms in England. Those who remained in Germany, sometimes called old Saxons, spread south and east over Saxony. They were finally subdued by Charlemagne in 803.

Cromlech is a modern term formerly applied by archæologists to a class of megalithic monuments, consisting of one flat stone supported on two or more upright stones, and forming a kind of open chamber with a roof. It is now generally recognized, however, that these are merely the denuded or uncovered chambers of cairns or barrows, for which another modern term, "dolmen," is now generally substituted.

The Varangians were the Norse vikings, who in the ninth century laid the foundations of the Russian Empire. Many of them entered the service of the Byzantine emperors, and in the days of the Comneni the Varangians regularly formed the imperial bodyguard at Constantinople. The Varangians at Constantinople were largely recruited by Anglo-Saxons and Danes from England after the Norman Conquest.

The Hottentots are an African native race occupying the country north from the Cape Colony to Mossamedes, stretching westward to the Atlantic, and bounded on the East by the Kalahari desert. Formerly a numerous nation, the Hottentots have been greatly diminished by the oppression of the Boers, and the race is now nearly extinct. The Hottentots include the Griquas, Bushmen, Korannas, Namaquas, and Damaras.

The Pygmie, a fabled race of dwarfs, mentioned by Homer (Il. iii. 3) and Pliny. They were said to have inhabited the shores of the Nile. A race of pygmies, the Wambutti, was discovered by Mr. H. M. Stanley during his recent expedition in "Darkest Africa." He tells us how the "dwarfs with poisoned arrows, securely hidden behind buttress or in some dark recess," disputed his march with relentless vigilance and vindictiveness.

The Sabines were an important tribe of ancient Italy, allied to the Latins, Samnites, etc. Famous in Roman history as the people whose daughters were treacherously seized by the Romans at the Consualia, or games in honor of the God Consus. A treaty of peace was concluded with the Sabines (750 B. C.). After frequent wars, the Sabines were finally defeated (449 B. C.) by M. Horatius, and were incorporated with Rome in the third century B. C.

The Hivites were a Canaanitish people specially associated with the Amorites, dwelling in the time of Joshua (Josh. ix.) near the center of Palestine and near Mount Hermon and Mount Lebanon, the latter being regarded as the country of the Amorites in the Egyptian texts and Tel-el-Amarna tablets. The Hivites are first mentioned in Scripture in Gen. x, 17; they were subjected to tribute by Solomon, after whose reign their name no longer appears.

Animism is a term which explains all natural phenomena by the medium of spiritual agency. The Greek, Roman, and other ancient nations of antiquity, worshipped natural phenomena in a concrete form as divinities. Compare Ra, the Egyptian sun-god, Sanskrit *Dyu*, Greek *Zeus*, the sky, etc. The term animism was first applied by Dr. E. B. Tylor, to express the general theory of spiritual beings.

Albinos, called also Leucoethiopes, or white negroes, and by the Dutch and Germans *Kakerlaken*, were at one time considered a distinct race, but closer observation has shown that the same phenomenon occurs in individuals of all races, and that the peculiar white appearance arises from an irregularity of the skin. The iris of the eye is red in the Albino. Albinoism occurs also in other mammalia, birds and insects.

The Teutones were a German tribe, mentioned by Roman writers as inhabiting the northwest part of Germany north of the Elbe. In conjunction with the Cimbri, they invaded Gaul (103 B. C.), destroying three Roman armies, and then proceeded to invade Italy; but the Teutones were defeated and almost annihilated by Marius at Aquæ Sextiæ (102 B. C.), and the Cimbri at Campus Raudius, near Verullæ (101 B. C.).

The Druids were ancient priests and legislators of the Britons, Germans and Gauls. They reverenced the oak and the mistletoe growing upon it. They believed in the immortality and transmigration of the soul, and were acquainted with astronomy, philosophy, and physic. They exercised great power over the people, and resisted the landing of Cæsar in Britain. They were exterminated by Suetonius Paulinus, A. D. 61.

In the vicinity of Palenque, a Mexican village, are the grandest and most extensive ruins in the American continent, dating from before the Spanish conquest. The chief structure is a huge pile called the palace, two hundred and twenty eight feet long, one hundred and eighty feet wide, and twenty-five feet high, with numerous sculptures and hieroglyphics, raised on a grand basement, square on the plan, and rising by huge steps to the summit.

The Aztecs were the early inhabitants of Mexico, who became highly civilized and adopted a monarchical form of government in 1352. Their most celebrated king was Montezuma-Illumicamina, who erected several magnificent buildings, the remains of which are still to be seen. They believed in a Supreme Being, whom they never represented by sculpture or painting, as they believed him to be invisible. The Aztecs were conquered by the Spaniards under Cortez, 1521.

The Ethiopic type of man is a worshipper of nature and believes in fetichism and witchcraft. The Mongolic type believes in dreams and visions and is a spirit worshipper, while the Caucasic type has creeds based on revelation and a priesthood with the idea of mediation prominent. The Mongolian is sluggish, somewhat morose and taciturn—with little of the initiative but much endurance. The Caucasian has a high imagination, is active and enterprising, speculative yet practical.

The word Boers (Dutch, "agriculturists," "farmers") is the name applied to the Dutch Colonists of South Africa who are engaged in agriculture and the care of cattle. Their first settlement was at the Cape of Good Hope about the sixteenth century. The Boers are the republican landholders of South Africa; by no means scrupulous and humane in their dealings with the natives, but remarkable for courage, love of freedom, sobriety and industry. They are good horsemen and splendid marksmen.

The Bedouins are that class of Arabs who lead a nomadic life. Living in the desert of Arabia they have evolved characteristics as robbers and herdsmen, intimately connected with their mode of life. Keen of physical sense, with active imagination, yet destitute of solid knowledge, the Bedouin unites independence and love of liberty, with a violent passion, an infamous love of plunder and an entire disregard of the rights of property. They are professedly Mahommedan. Bigamy is rare, polygamy scarcely known.

The ancient inhabitants of Samaria were a mixed people, composed of the remnant of Ephraim and Manasseh, and of Assyrian colonists introduced after the captivity of the Ten Tribes (721 B.C.). In the New Testament "The Samaritans" is used as the name of a religious community opposed to the Jews. They accepted only the Pentateuch, and maintained that the sanctuary of the divine choice was not Mount Zion, but Mount Gerizim (Shechem), where they had a temple destroyed by John Hyrcanus (128 B.C.). A few of the race and religion still exist.

The Albic word "cairn" or "carn," signifying a protuberance, a heap, is applied among archæologists to the artificial heaps of unhewn stones found in England, Wales, Scotland and Brittany. Both burnt and unburnt remains have been found in these cairns, indicating that they were used as family sepulchres. They vary in shape and size. One of the largest is the great chambered cairn of New Grange, near Droghede, with a diameter of three hundred and fifteen feet and a height of twenty feet. Its main chamber is about thirteen feet in diameter with side recesses of smaller size. The site of the cairn is surrounded by a circle of standing stones.

The Visigoths, or Western Goths, were the descendants of that branch of the Gothic race established by Aurelian in Dacia (270). The descendants of the other branch of the race, which remained in Southern Russia, were called Ostrogoths (Eastern Goths). On the death of Theodosius, the Visigoths, under Alaric, overran Greece (396) and Italy (400). After Alaric's death (410) they established a kingdom at Toulouse (418) which eventually comprised the whole of Gaul south of the Loire and west of the Rhone, as well as Provence and the greater part of Spain. With the defeat (and death) of Alaric II. by Clovis, on the field of Vouglé (or Vouillé or Voclad) near Poitiers (507), the kingdom of Toulouse came to an end, and the Visigoths abandoned to the conqueror all their territories north of the Pyrenees, with the exception of a small tract of country in Gaul, including the cities of Carcassone, Narbonne, and Nîmes.

The Hittites were one of the most important tribes in the south of Canaan. They are mentioned in Gen. x. as the descendants of Heth, a son of Canaan. In the age of Abraham the Hittites inhabited Hebron and its neighborhood (Gen. xxiii.). The primitive seat of the Hittites was probably the Taurus mountains of Asia Minor, from whence, as indicated by the cuneiform records of Tel-el-Amarna, in the latter part of the eighteenth Egyptian dynasty, they invaded Syria, and later, in the reign of Rameses II., were settled at Kadesh, ultimately spreading to the south of Palestine. In race the Hittites were probably Turanian, and in their language allied to the Alarodian family. The peculiar hieroglyphic writings found on Hittite monuments in Syria, Asia Minor, etc., are beginning to be deciphered. In common with the Hyksos the deity of the Hittites was Seti, the Egyptian Typhon, and the local goddess of Kadesh, Anata, the Canaanitish goddess of war.

According to Greek tradition the Amazons were communities of women, who dwelt in Asia and Scythia, the most famous inhabiting Pontus. They are said to have built Ephesus. Of their queens, one, Hypolyta, was conquered by Hercules; another, Penthesilea, was killed by Achilles, when aiding the Trojans; a third, Thalestris, visited Alexander the Great. The *name* Amazon is derived from the Greek *amazos*, *i.e.*, without a breast, from the removal of the right bosom to facilitate the use of the javelin and bow. The bodyguard of the King of Dahomey consists of women called Amazons.

The Walloons are the inhabitants of the south-eastern division of Belgium, their country comprising the provinces of Hainault, Namur, Liége, and Luxemburg, with part of Brabant. The Walloons are Romanized Gauls, lineal representatives of the ancient Belgæ, distinguished from their Flemish (Teutonic) neighbors by their Romance language, their stronger physique, and their darker complexion. The Walloon language, however, a strongly marked dialect of Northern France (the Langue d'Oil), is now merely a provincial *patois*, French being the written standard and official language of the whole kingdom.

The Vandals were one of the Teutonic peoples who overthrew the Roman Empire. They were first heard of as occupying Brandenburg and Pomerania. In 406 they crossed the Rhine and entered Gaul, and in 409 they crossed the Pyrenees and entered Spain, where they waged twenty years of bloody warfare with the imperial armies and with their fellow-barbarians, the Goths and Suevi. Under Genseric they invaded (429) and conquered Roman Africa, Carthage being taken in 439. Genseric formed a powerful fleet and took and plundered Rome (455). Ultimately (533-6) the Vandal kingdom in Africa was overthrown by Belisarius, the general of Justinian.

The Montenegrins belong to the Servian branch of the Slavs, who inhabit Montenegro, an independent principality on the eastern side of the Adriatic, between Dalmatia, Herzegovina, Bosnia, and Albania. In the fourteenth century Montenegro was a principality subject to the Servian empire, but when the Servian power was broken by the Turks at the battle of Kossovo (1389), it became the asylum of all who disdained to submit to the Turkish yoke; and since then the main business of the Montenegrins has been to fight the Turks. They joined Servia (1876) and Russia (1877-78) against the hereditary foe, with the result that they acquired an accession of territory in 1878 (Antivari, etc.), and again in 1880 (Dulcigno). There was temporary fighting between the Turks and the Montenegrins at Cetinjé (July 3-4, 1886).

The wearing of beards dates from an early period, the *Assyrians* being thus depicted in their sculptures. The *Egyptians* were shaven, or wore their beards cut square. By the Levitical law the *Jews* were forbidden to shave their beards. The *Persians*, the *Greeks* (until the time of Alexander the Great), and the *Romans*, were bearded; among the last named shaving was introduced about 296 B. C. In *England* beards were not in fashion from the Conquest to the thirteenth century, and at the time of Charles II. the beards were out of use. In 1851 the custom of wearing the beard was revived. *Peter the Great* caused all the Russians to shave. In *France* modern shaving is said to have come into force during the reigns of Louis XIII. and XIV. In the *East* the beard is regarded as a mark of dignity, and an insult offered to the beard is highly resented.

Of dwarf races of men, the most notable are the Bushmen, four feet seven inches high; the Akkas in Central Africa, about four feet ten inches high, with whom Emin's men identified the hordes of forest dwarfs ("a venomous, cowardly, and thievish race, and very expert with their arrows") by whom Stanley's march in 1888 was so harrassed; the Obongos, on the Gaboon, and the still smaller Batwas, four feet three inches; a tribe called M'Kabba, near Lake Ngami, reported as only four feet one inch; also the Andaman Islanders (under five feet), the Aetas in the Philippines, the Malayan Samangs, the Javan Kalangs. The Lapps, Ainos, Fuegians, and Veddahs are somewhat taller.

The Hyksôs, or Shepherd Kings, were a race of Asiatic origin, possibly of Mongoloid type, whose nationality is a matter of dispute. Accompanied by a horde of Semites they invaded and occupied the northern part of Egypt about sixteen hundred years before Christ, overthrowing the Middle Empire, and holding possession of the country for six hundred and sixty-nine years. Ahmes, the founder of the eighteenth Egyptian dynasty, conquered the Hyksôs, the more important part of whom were driven from Egypt. It was held, as stated by Eusebius—a view supported by many of the best Egyptologists—that Joseph ruled Egypt during the sway of the Hyksôs dynasty. Important discoveries of the Hyksôs dynasty have recently been made by M. Naville, at Bubastis, among these being mutilated twin statues of the Hyksô King Apepi, probably contemporaneous with Joseph.

ABOUT THE SARACENS.

The term Saracens is of doubtful origin. At first it was applied by the Greeks and Romans to the nomad Arabs, who harassed the frontier of the empire from Egypt to the Euphrates; but afterwards, during the middle ages, to the Moslems in general, the Saracens having been the earliest and most enthusiastic converts of Islam. In the seventh century the Saracens conquered Arabia, North Africa, and part of Asia; and in the eighth century they conquered Spain (711), but their progress in France was stopped by their defeat by Charles Martel, at Tours (732). The great caliphate of Bagdad, founded in 764, fell before the assaults of the Tartars in 1277; the great caliphate of Cordova, founded in 756, endured till 1031, when it was broken up into smaller governments, the last of which, the kingdom of Granada, fell before Ferdinand of Spain in 1492. Like the Normans, the Saracens were a people of great enterprise and rare adaptability, and quickly surpassed their teachers in all the arts which embellish life.

OUR NATION'S PREDECESSORS.

Mound Builders is the name given to a vanished race by whose labor the remarkable earth mounds found in the United States were raised. These mounds exist in extraordinary numbers over all the country between the Alleghany and Rocky Mountains, but chiefly in Ohio, Illinois, Indiana, and Missouri; they are abundant in all the Gulf States, and even farther south, and they extend at least as far north as the great lakes. Their usual height is from six to thirty feet, with a diameter of forty to one hundred feet. The majority are simply conical burial mounds, mostly rising from fifteen to twenty-five feet, though one in West Virginia is seventy feet high and over three hundred feet in diameter at the base. But very many others of these mounds are defensive, and others again have a

religious origin. The fortifications, usually earthworks raised on heights near some water course, embrace walls, trenches, watch-towers, and are too skillfully constructed to have been temporary defences; many archæologists believe that there was a connected line of defensive works from New York to Ohio. In the Mississippi Valley, where the largest mounds are, these forts disappear; and it is supposed that the principal enemies of the Mound Builders had their home in the east—perhaps in the Alleghanies. Some of the Ohio fortresses enclose over one hundred acres, the walls of earth, winding in and out, in each case being several miles long.

THE GREAT HUMAN FAMILY.

The three primary divisions of man, as indicated by Latham, are the Indo-European, the Mongolian and the African.

I. THE INDO-EUROPEAN OR CAUCASIC race originally extended from India across Europe, and increasing ever in civilization and intellectual power from age to age, has become the dominant one in the world, extending its influence to every part of the earth, supplanting many inferior races, and repeopling wide areas, as in America and Australia.

The Caucasic race comprises two principal branches—the Aryan and the Semitic. A third branch, according to M. de Quatrefages, includes the Caucasians proper, Euscarians (Basques), and others.

Most of the inhabitants of Europe belong to the Aryan Family; they are arranged in the following groups:

1. The Keltic, in the N. W., comprising the Welsh, Gaels, Erse, Manx, and Armoricans.
2. The Italic, chiefly in the S. W. and S., comprising the Italian and other Romance nations—French, Spanish, Portuguese, Roumanesch, and Roumanians.
3. The Thraco-Hellenic, in the S. E., Greeks and Albanians.
4. The Teutonic, in the N. N. W. and center, comprising the Germans, Scandinavians, Danes, Icelanders, Dutch, Flemings, English.
5. The Lithuanian, S. E. of the Baltic.
6. The Slavonic, in the E., comprising the Russians, Poles, Tsekhs, Serbs, Croats, Bulgarians, etc.

The Indo-European or Caucasic race in Asia comprises the Hindus, Baluchis, Afghans, Iranians (Persia), Galchas (Zarafshan), and the Semitic tribes of Armenia, Syria, Arabia, etc.

II. THE MONGOLIAN is divisible into three branches, according to geographical position, which again form numerous smaller families.

1. The Asiatic, comprising the Mongolians of the Chinese Empire, India, and Indo-China; the Kalmucks, adjoining the Turks, who extend from Southern Europe far into Central Asia; the Magyars of Hungary; the Yakuts and Samoeids (or Samoyedes) of Siberia; with the Lapps, Finns, and various tribes of East Europe.
2. The Oceanic Mongolians are composed of two classes. I. The black-skinned found in New Guinea, Australia, Tasmania, and the islands between New Zealand and New Caledonia. II. The yellow, olive or brown race, occupying New Zealand, the Malay Peninsula, Sumatra, Borneo, Java, Moluccas, Philippines, Madagascar, etc.
3. The American Mongolians comprise a large number of tribes, the chief of which in North America are—the Athabaskans, Algonkins, Sioux, Paducas, and Mexicans. In South America, the Quichuas, Chilians and Patagonians extend along the west coast. The Caribs, Maypures, Brazilians, Moxos, and Chiquitos occupy the north, east and center of the continent. The Eskimos form a connecting link between the Asiatic and American branches of this family.

III. THE AFRICAN, forming the third great division of the human race, is exhibited in its purest form by the natives of Western Africa. The Negroes occupy the whole central portion of the country from Cape Verde on the west to Khartoom on the east, and south to the Congo. South of the Negroes are the Bantus (including the Kafirs), inhabiting the greater part of Africa between the 4th parallel of N. lat. and the Cape. In the S. W. are the Hottentots. Certain dwarfish tribes are found in different parts of the continent, as the Bushmen of the Kalahari Desert, the Obongo of the Ogowe basin, and others. The Fulas and Nubas occupy parts of the Soudan; the former, in the N. W., extend from the Senegal and Niger towards Lake Tchad; the latter are found in Nubia, Kordofan, Darfur, etc. The Gallas, Copts, Somali, of the Sahara, Egypt, and East Africa; the Abyssinians; and the Berbers, Kabyles, Tuareks and other tribes of North Africa, belong to the Hamitic race, which is closely allied to the Semitic race. The latter is represented by the Arabs of the N. coast, and of the Arabian Peninsula, and by the Tigres and other tribes of Abyssinia.

THE GYPSY TRIBES.

The word Gypsy is a corruption of Egyptian, but is best understood as applied to a mysterious vagabond race, scattered over the whole of Europe and parts of Asia, Africa, and America. Whence they originally came is not definitely known, but India seems to have been the cradle of the tribe. For centuries past they have drifted about over Europe in small bands, having no permanent homes; living by begging, fortune telling, and various tricks. The first notice of them which occurs in European literature is embodied in a free paraphrase, in German, of the Book of Genesis, written by an Austrian monk about 1122. On August 17, 1427, a band of them, coming from Bohemia, made their appearance before Paris, which, however, they were not allowed to enter, but were lodged at La Chapelle Saint Denis. Other hordes succeeded these in the following years, spreading in rapid succession over all parts of Germany, over Spain, England, Russia, Scandinavia, and, indeed, over the remotest parts of Europe. The account which they most frequently gave of themselves was, that they originally came from "Little Egypt," that the King of Hungary had compelled about 4,000 of them to be baptized, had slain the remainder, and had condemned the baptized to seven years' wandering. In France, Germany, Scotland, and other countries the most stringent laws were formerly enforced against them and they were slain by thousands. The jargon spoken by the Gypsies is styled Romany and contains many Sanscrit words and corrupted Hebraisms.

THE SCATTERED NATION.

The Hebrew race is distributed over the Eastern continent as follows:

In Europe there are 5,400,000; in France, 63,000; Germany, 562,000, of which Alsace-Loraine contains 39,000; Austro-Hungary, 1,544,000; Italy, 40,000; Netherlands, 82,000; Roumania, 265,000; Russia, 2,552,000; Turkey, 105,000, and in other countries 35,000, Belgium containing the smallest number, only 3,000.

In Asia there are 319,000; Asiatic Turkey, 47,000, in Palestine there being 25,000; Asiatic Russia, 47,000; Persia, 18,000; Middle Asia, 14,000; India, 19,000, and China, 1,000.

Africa contains 350,000; Egypt, 8,000; Tunis, 55,000; Algiers, 35,000; Morocco, 60,000; Tripoli, 6,000, and Abyssinia, 200,000.

The entire number of Hebrews in the world is nearly 6,300,000.

UNITY OF THE RACE.

Geology has revealed to us the existence in prehistoric times of animals allied to those which now exist, but with great variation in organization, and differing very considerably in size. Among the fossils are the skeletons of creatures far exceeding in size any now living, and, on the other hand, bones of a small animal scarcely larger than a dog of one of the breeds of medium size, which geologists assert was the progenitor of the modern horse. But so far as science has been able to discover the human being has ever been of the same average dimensions. Individuals of all races vary in height; the average bulk of the inhabitants of tropical climates is generally less than that of the people who dwell in the regions of temperate climate; and stunted men and women occupy the colder parts of the earth; but so it has been apparently in all ages. The skeletons found in old barrows, representatives of the men of the

prehistoric period, the bones found imbedded in strata of great antiquity, are of about the same dimensions as those of the men of to-day. No necessity of existence has lengthened the arms or neck, changed toes into thumbs, or added a finger to the hand. The general type of all men in all regions, from the equator to the poles, is that they are two-handed, walk erect, have the power of speech more or less developed, and that between even those of lowest organization and the most intelligent of quadrupeds there is a very marked distinction. Human idiots there are, as there are human monstrosities of form; but they are exceptions which prove the permanence of the typical characteristics. While, however, the general agreement in organization appears to be ineradicable, there are certain external differences, in complexion, hair, facial contour, and other minor matters, which seem to indicate separate groups or families of the human race, and have suggested the theories advocated by some ethnologists of distinct centres of creation, in opposition to the more generally accepted belief in the derivation of all human beings from the same stock. In discussing this question, we may fairly take into consideration that, in the respect of the means by which the human race might have spread over the earth, we are not encountered by the difficulties which present themselves when we are examining the history of the movements of other members of animated nature. The will to travel, inspired by many motives, is added to the power to travel, given by natural adaptability to endure atmospheric and other variations, and by the exercise of the reasoning power; and in cases of accidental drifting to unknown islands or continental coasts, there is a power to make the best of adverse conditions. It is quite possible that the intelligent and active descendants of a small family located in southwestern Asia should in the course of thousands of years have made their way east and west, north and south, making at intervals settlements which became centres of new dispersions. From Asia to Western Europe was a comparatively easy journey, allowing many centuries for its accomplishment. Africa could be peopled not only by passing across the neck of land which divides it from Asia, but by settlements on the coast made by adventurous mariners, or by parties drifted to the shores. The straits which separate north-eastern Asia from northwestern America could be crossed by canoes, visiting the chain of islands on their way. We know that adventurous Northmen of Europe reached the North American coast from Greenland centuries before Columbus crossed the Atlantic; and the Chinese have traditions of discoveries and settlements on the western coast of North America, nearly as far south as California. Long residence in hot climates affects the color of the skin, and it becomes hereditary. The necessity of constant physical exertion to maintain existence, and the absence of intellectual training, develop the muscles and bony framework, and induce a dwindling of the brain. The facial angle becomes more acute, the jaw-bone more prominent and the figure more lithe and active. In very hot climates less animal food can be eaten, even by recent settlers, and in the course of ages is dispensed with altogether--sometimes from religious considerations, as among the natives of the Indian peninsula and other parts of Asia—and the resulting difference of physique is very noticeable. Other causes, such as the effects of the chemical constituents of the atmosphere and of water, it may be the effects of terrestrial magnetism, are in continual operation, and the results, aided by hereditary transmission, produce the differences which mark what are popularly called the races of mankind.

HEALTH, HYGIENE AND PHYSIOLOGY.

The surest road to health, say what they will,
Is never to suppose we shall be ill:—
Most of those evils we poor mortals know
From doctors and imagination flow.
—CHURCHILL.

MEDLEY OF FACTS AND COUNSELS.

Don't sleep in a draught.

Don't go to bed with cold feet.

Don't stand over hot-air registers.

A bag of hot sand relieves neuralgia.

Warm borax water removes dandruff.

Salt should be eaten with nuts to aid digestion.

Don't eat what you do not need, just to save it.

Don't sit in a damp or chilly room without a fire.

Don't try to get cool too quickly after exercising.

Homœopathy began in the United States in 1825.

Don't sleep in a room without ventilation of some kind.

Medicine was introduced into Rome from Greece 200 B.C.

Hippocrates, 450 B.C., is styled the "Father of Medicine."

It rests you, in sewing, to change your position frequently.

There was a foundling hospital at Milan, Italy, as early as 787.

Don't try to get along without flannel underclothing in winter.

Oxygen, the life element, was discovered by Dr. Priestly in 1774.

If an artery is severed, tie a small cord or handkerchief above it.

Don't stuff a cold lest you should be next obliged to starve a fever.

A little soda water will relieve sick headache caused by indigestion.

Well-ventilated bedrooms prevent morning headaches and lassitude.

Sprains and bruises call for an application of the tincture of arnica.

Tickling in the throat is best relieved by a gargling of salt and water.

Harvey, the discoverer of the circulation of the blood, made his earlier studies in Italy, where the science of anatomy had but lately been revived.

For bilious colic, soda and ginger in hot water. It may be taken freely.

A cupful of strong coffee will remove the odor of onions from the breath.

A popular proverb says that "a man is either a physician or a fool at forty."

Pains in the side are most promptly relieved by the application of mustard.

A cupful of hot water drank before meals will relieve nausea and dyspepsia.

For cold in the head, nothing is better than powdered borax, sniffed up the nostrils.

One in a faint should be laid flat on his back, then loosen his clothes and let him alone.

There were 48,930 blind people in the United States in 1880, and 33,880 deaf mutes.

There is a *personal* as well as a *public* hygiene—*your* business is to care for the former.

It is stated that but sixteen of the 134 scholars attending Amherst College use tobacco.

It was Galen, 150 A.D., who first applied experimental methods to the study of disease.

It is agreed on all hands that nicotine, the active principle of tobacco, is a powerful poison.

Consumptive night-sweats may be arrested by sponging the body nightly in salt water.

In 1874 all London houses were compelled for the first time to be connected with sewers.

A fever patient can be made cool and comfortable by frequent sponging off with soda water.

To beat the whites of eggs quickly add a pinch of salt. Salt cools, and cold eggs froth rapidly.

Whooping-cough paroxysms are relieved by breathing the fumes of turpentine and carbolic acid.

Nervous spasms are usually relieved by a little salt taken into the mouth and allowed to dissolve.

A drink of hot, strong lemonade before going to bed will often break up a cold and cure a sore throat.

Broken limbs should be placed in natural positions, and the patient kept quiet until the surgeon arrives.

Diphtheria is a specific poison and sometimes kills without any formation of the diphtheritic membrane.

It was Swift who asserted that "the best doctors in the world are Dr Diet, Dr. Quiet and Dr. Merryman."

More cases of consumption appear among needlemakers and filemakers than any other classes of laborers.

The scorpion is a total abstainer. If a drop of whisky be placed on one's back it will immediately sting itself to death.

Hemorrhages of the lungs or stomach are promptly checked by small doses of salt. The patient should be kept as quiet as possible.

Sleeplessness caused by too much blood in the head may be overcome by applying a cloth wet with cold water to the back of the neck.

In Bacon's works we read: "A man's own observation, what he finds good of and what he finds hurt of, is the best physic to preserve health."

Wind colic is promptly relieved by peppermint essence, taken in a little warm water. For small children it may be sweetened. Paregoric is also good.

Sickness of the stomach is most promptly relieved by drinking a teacupful of hot soda and water. If it brings the offending matter up, all the better.

Men of marked ability in any line have usually one deep, perpendicular wrinkle in the middle of the forehead, with one or two parallel to it on each side.

Japanese doctors never present bills to their patients. They await the patient's inclination to pay, and then thankfully accept whatever sum is offered.

For stomach cramps, ginger ale or a teaspoonful of the tincture of ginger in a half glass of water, in which a half teaspoonful of soda has been dissolved.

The Roman houses and palaces were so imperfectly lighted that in many living rooms the inmates were forced to depend on lamps by day as well as by night.

Assuming the working age to be from twenty to thirty years, and counting only male workers, 440 persons in this country live on the labor of every 100 workers.

Naltknehoff, of Geneva, says there are 311,000 blind persons in Europe, mostly from fevers, and that 75 per cent would have kept their sight had they been properly treated.

The marriage rate of Germany rose 10 per cent in the year following the Franco-Prussian war. The same phenomenon was observed after the French war which ended in 1815.

Absinthe is an alcoholic solution highly flavored with wormwood. It is much drunk in France, particularly in Paris. Its abuse is productive of much evil to the nervous system.

Tracheotomy is the operation of making an opening into the windpipe. It was performed upon the late German emperor, Frederick, who died of cancer of the larynx, June 15, 1888.

A man will die for want of air in five minutes; for want of sleep in ten days; for want of water, in a week; for want of food, at varying intervals, dependent on various circumstances.

The human hair is absolutely the most profitable crop that grows. Five tons of it are annually imported by the merchants of London. The Parisians harvest upward of 200,000 lbs., equal in value to $400,000 per annum.

American life average for professions (Boston): Storekeepers, 41.8 years; teamsters, 43.6 years; laborers, 44.6 years; seamen, 46.1 years; mechanics, 47.3 years; merchants, 48.4 years; lawyers, 52.6 years; farmers, 64.2 years.

The best time to bathe is just before going to bed, as any danger of taking cold is thus avoided; and the complexion is improved by keeping warm for several hours after leaving the bath.

The flavor of cod-liver oil may be changed to the delightful one of fresh oyster, if the patient will drink a large glass of water poured from a vessel in which nails have been allowed to rust.

In 1684, four men were taken alive out of a mine in England, after twenty-four days without food. In 1880 Dr. Tanner, in New York, lived on water for forty days, losing thirty-six pounds in weight.

During the last Paraguayan war it was noticed that the men who had been without salt for three months, and who had been wounded, however slight, died of their wounds because they would not heal.

A hospital for quarantine or for infectious diseases is called a lazaretto. This word is not derived from Lazarus, the Bible beggar, but from the isle of St. Lazarus, in Venice, where such an hospital was first built in 1484.

Calisthenics, or callisthenics (Gr. *kalos*, "beautiful," and *sthenos*, "strength"), is a name for exercises for promoting gracefulness and strength, and comprises the more gentle forms of gymnastics, especially adapted to girls.

The natural rate of the pulse varies at different ages. The beats per minute are as follows: At birth, 130-140; 1 year, 115-130; 2 years, 100-115; 3 years, 95-105; 4 to 7 years, 85-95; 7 to 14 years, 80-90; 14 to 21 years, 75-85; 21 to 60 years, 70-75, and old age, 75-85.

Appendicitis, the medical term for inflammation of a small intestinal appendix, the use of which no one has been able to discover, has become so common that physicians are advocating its removal from all infants as a preventive measure, like vaccination.

Spirits are said to be "proof" when they contain fifty-seven per cent of alcohol. The maximum amount of alcohol, says Parkes, that a man can take daily without injury to his health is that contained in 2 oz. brandy, ¼ pt. of sherry, ½ pt. of claret, or 1 pt. of beer.

One should be cautious about entering a sick room in a state of perspiration, as the moment you become cool your pores absorb. Do not approach contagious diseases with an empty stomach, nor sit between the sick and the fire, because the heat attracts the vapor.

Influenza (Ital., "influence;" called in French *la grippe*), one of the class of diseases to which the term zymotic is now applied, has long been recognized by medical writers. The popular application of the name to any severe cold in the head is not sanctioned by medical authority.

Sal Volatile, a well-known remedy for faintness, consists essentially of a solution of carbonate of ammonia in alcohol. It contains in addition free ammonia and the volatile oils of lemon and nutmeg. As it is a strongly caustic liquid, it should never be taken unless well diluted with water.

Of every 1,000 clergymen between the ages of 45 and 65, it is found that only 15.93 die annually. But of every 1,000 doctors between the ages of 45 and 65 no fewer than 28.02 die every year. This is to say, the mortality of medical men is almost double that of clergymen, and the rate is increasing.

Small rose pimples are a sign of chicken pox; diffuse redness and swelling, of erysipelas; small red dots like flea bites, of measles; bright diffuse scarlet, of scarlet fever; small red pimples changing to pustules, of smallpox; rose colored spots, scattered, of typhoid fever.

After the age of fifty the brain loses an ounce every ten years. Cuvier's weighed 64, Byron's 79, and Cromwell's 90 ounces, but the last was diseased. Post-mortem examinations in France give an average of 55 to 60 ounces for the brains of the worst class of criminals.

Most fatal of historic plagues was the "Black Death," a name given to a form of typhus in which the body turns black and rapidly putrifies. An outbreak occurred in 1348, which desolated the world from China to Ireland. In Europe alone 2,500,000 died and in London 100,000 died.

In the cholera visitation of 1866, the proportion of deaths per 10,000 inhabitants in the principal cities of Europe was as follows: London, 18; Dublin, 41; Vienna, 51; Marseilles, 64; Paris, 66; Berlin, 83; Naples, 89; St. Petersburg, 98; Madrid, 102; Brussels, 184; Palermo, 107; Constantinople, 738.

Coagulation is the amorphous solidification of a liquid, or part of a liquid, as when the casein of milk is solidified by rennet in making cheese, or the white of an egg by boiling. The process varies in various substances. Albumen, or the white of an egg, coagulates at a temperature of 160°.

Hair which is lightest in color is also lightest in weight. Light or blonde hair is generally the most luxuriant, and it has been calculated that the average number of hairs of this color on an average person's head is 140,000; while the number of brown hairs is 110,000, and black only 103,000.

Homœopathy (*homoion*, "like;" *pathos*, "disease") is a medical doctrine, which teaches that diseases should be treated or cured by drugs capable of producing similar symptoms of disordered health to those presented by them; or, as it is commonly phrased, "like cures like" —*similia similibus curantur.*

It is estimated that the number of insane persons in the United States is 168,900. Causes of Insanity.—Hereditary, 24 per cent.; drink, 14 per cent.; business, 12 per cent.; loss of friends, 11 per cent.; sickness, 10 per cent.; various, 29 per cent. This result is the medium average arrived at by Mulhall on comparing the returns for the United States, England, France and Denmark.

Among the most valuable of medicinal agents are blisters, which when applied to the skin, raise the cuticle into vesicles filled with serous fluid. They have for their object the establishing of a counter-irritation or diversion of inflammatory action from a part in which it cannot be reached by remedies, or from some organ where it may do permanent mischief, to some more superficial part of the body

The measurement of that part of the skull which holds the brain is stated in cubic inches thus: Anglo-Saxon, 105; German, 105; Negro, 96; Ancient Egyptian, 93; Hottentot, 58; Australian native, 58. In all races the male brain is about ten per cent heavier than the female. The highest class of apes has only 16 ounces of brain. A man's brain, it is estimated, consists of 300,000,000 nerve cells, of which over 3,000 are disintegrated and destroyed every minute.

Color-blindness is a term introduced by Sir David Brewster to denominate a defect of vision owing to which some persons are unable to distinguish certain colors correctly. It is also called Daltonism, from Dalton the chemist, who suffered from the defect, and who gave the first detailed description of it in 1794.

Snoring isn't confined to sleep. Persons with some forms of nasal catarrh snore continually. But a healthy man snores, as a rule, only when asleep, because then he does not control himself. He gets into some position, with his mouth open, and inhales through his mouth. If the mouth were shut he wouldn't snore.

Travelers in arctic regions say that the physical effects of cold there are about as follows: Fifteen degrees above, unpleasantly warm; zero, mild; 10 degrees below, bracing; 20 degrees below, sharp, but not severely cold; 30 degrees below, very cold; 40 degreees below, intensely cold; 50 degrees below, a struggle for life.

Curling is a sport on the ice common in Scotland and Canada, where it is played by all classes of people. Frozen-over lakes and rivers answer for the purpose, but under the auspices of curling clubs, artificial shallow ponds are maintained for the sake of this popular sport; and the *bonspiels*, or set matches, are contested with great spirit.

The average duration of human life is about 33 years. One quarter of the people on the earth die before age 6, one-half before age 16, and only about one person of each 100 born lives to age 65. The deaths are calculated at 67 per minute, 97,790 per day, and 35,639,835 per year; the births at 70 per minute, 100,800 per day, and 36,792,000 per year.

The percentage of illegitimate births for various countries, as stated by Mulhall, is as follows: Austria, 12.9; Denmark, 11.2; Sweden, 10.2; Scotland, 8.9; Norway, 8.05; Germany, 8.04; France, 7.02; Belgium, 7.0; United States, 7.0; Italy, 6.8; Spain and Portugal, 5.5; Canada, 5.0; Switzerland, 4.6; Holland, 3.5; Russia, 3.1; Ireland, 2.3; Greece, 1.6.

Highly arched eyebrows are said to denote vivacity and brilliancy; level brows, strength of intellect; regularly curved eyebrows express cheerfulness, square ones deep thought; irregular, fickleness, versatility, excitability; raised at the inner corner, melancholy; joined over the nose, an unsettled mind. Thick and bushy eyebrows denote physical strength.

The periods of gestation are 11 months for the horse and ass; camel, 12 months; elephant, 2 years; lion, 5 months; cow, 9 months; buffalo, 12 months; sheep, 5 months; dog, 9 weeks; cat, 8 weeks; sow, 16 weeks; the wolf 90 to 95 days. The goose sits 30 days; swans, 42; hens, 21; ducks, 30; peahens and turkeys, 28; canaries, 14; pigeons, 14; parrots, 40.

The stethoscope is an instrument used by medical men in performing an auscultation. It is a hollow cylinder of light wood or gutta-percha, the funnel-shaped end of which is placed upon the thorax, abdomen, or other part of the body of the patient, and the other end, to which is attached a circular ivory plate, to the ear of the practitioner. It was invented by Lænnec, of Paris, in 1816.

Coma, derived from the Greek, is a term used in medicine to signify a state of more or less profound insensibility allied to sleep, but differing from natural sleep in its character as well as in the circumstances under which it occurs. In coma the patient lies on his back, and is either simply insensible to external impressions, or has a confused and dull perception of them, with restlessness and low delirium.

There are 3,000,000 opium smokers in China. A paper read before the New York Medical Society by Dr. F. N. Hammond presents some important facts. In 1840 about 20,000 pounds of opium were consumed in the United States; in 1880, 543,450 pounds. In 1868 there were about 90,000 habitual opium eaters in the country, now they number over 500,000. More women than men are addicted to the use of the drug.

The elephant lives 100 years and upward; rhinoceros, 20; camel, 100; lion, 25 to 70; tiger, leopard, jaguar, hyena, 25; beaver, 50; deer, wolf, 20; fox, 14 to 16; monkey, 16 to 18; hare, 8; squirrel, rabbit, 7; swine, 25; horse, 30; ass, 30; sheep, 10; cow, 20; ox, 30; swans, parrots, ravens, 200, eagle, 100; geese, 80; hens and pigeons, 10 to 16; hawks, 36 to 40; cranes, 24; blackbird, 10; codfish, 15; eel, 10; crocodile, 100; tortoise, 100 to 200; whale, 1,000 (estimated).

If the condensed breath collected on the cool window panes of a room where a number of persons have been assembled be burned, a smell as of singed hair will show the presence of organic matter, and if the condensed breath be allowed to remain on the windows for a few days, it will be found, on examination by the microscope, that it is alive with animaculæ. It is the inhalation of air containing such putrescent matter which causes half of the sick headaches, which might be avoided by a circulation of fresh air.

Hunger or appetite is generally used to indicate the natural desire for food experienced in health. Its causes are two: (1) A condition of the stomach not yet accurately understood, relieved by taking food; (2) A condition of the system, not relieved till the products of digestion begin to be absorbed into the blood. These are usually present together, but either may act without the other. The stomach condition is that in which the organ is in the most favorable state for digestion, and tends to recur at the habitual meal hours; but often passes off if eating be long deferred, though the need and craving of the system for food remains. Hence the importance of taking food at regular hours.

Seidlitz powders (are so named from the village of Seidlitz or Sedlitz in northern Bohemia, where there is a spring of natural aperient mineral water with similar constituents) and are composed of 120 grains of tartrate of soda and potash, and 40 grains of bicarbonate of soda reduced to powder, mixed and enclosed in a blue paper, and thirty-eight grains of powdered tartaric acid in a white paper. The contents of the blue paper are dissolved in from half a tumbler to a tumbler of water, and those of the white paper are then stirred in. The mixture should be taken while the effervescence from the liberation of the carbonic acid is still going on. These powders act as an agreeable and mild cooling aperient.

The nutritive fluid of the tissues, as well as the great carrying agent of the body, is the blood. As such its functions are of a three-fold nature: (1) it conveys the food material to all the tissues of the body. (2) removes thence the waste products; and (3) its red corpuscles are the great carriers of oxygen, without which the act of respiration could not be carried on. The blood going to the tissues (arterial blood) is of a bright red color, due to the presence of a large excess of oxygen obtained in the lungs; whereas the blood returning from the tissues back to the heart and lungs (venous blood) is of a dark purple color, its oxygen having been removed from it in the tissues, and a large quantity of carbonic acid having been added to it.

There were 2,180 lepers in Norway in 1883. The number in Spain and Italy is considerable In the Sandwich Islands the disease is so prevalent that the island of Molokai is set apart for lepers, who are under the direction of a French Jesuit priest. The death of Father Damien, in 1889, called attention to the noblest instance of self-sacrifice recorded in the nineteenth century. His place is now filled by a younger member of his order, who voluntarily sacrifices his health and life to aid the outcasts. In the Seychelles Islands leprosy is also common.

The limits of vision vary with elevation, conditions of the atmosphere, intensity of illumination and other modifying elements in different cases. On a clear day an object one foot above a level plain may be seen at a distance of 1.31 miles; one 10 feet high, 4.15 miles; one 20 feet high, 5.86 miles; one 100 feet high, 13.1 miles; one a mile high, as the top of a mountain, 95.23 miles. This allows 7 inches; or, to be exact, 6.99 inches, for the curvature of the earth, and assumes that the size and illumination of the object are sufficient to produce an image.

Stammering, or stuttering, is an infirmity of speech, the result of failure in co-ordinate action of certain muscles and their appropriate nerves. It is analogous to some kinds of lameness; to cramp or spasm, or partial paralysis of the arms, wrists, hands, and fingers, occasionally suffered by violinists, pianists, and swordsmen; to the scrivener's palsy, or writer's cramp, of men who write much. For speech—like writing, fencing, fingering a musical instrument, and walking—is a muscular act involving the co-ordinate action of many nerves and muscles. The words stammering and stuttering practically denote the same infirmity.

In the small pox epidemic of 1881, in England, the returns showed 4,478 deaths per million inhabitants—98 vaccinated to 4,380 unvaccinated or in the proportion of 44 to 1. In the epidemic at Leipsic in 1871, the death rate was 12,700 per million, 70 per cent of whom were unvaccinated. In Boston the proportion was 15 to 50, and in Philadelphia 17 to 64. During the Franco-German war the Germans lost only 263 men from this disease, the French 23,499, the former having been revaccinated in barracks. In the war in Paraguay, the Brazilians lost 43,000 men from malignant or black small-pox, that is 35 per cent. of their army, nine cases in ten proving fatal.

Longevity is the term used for great length of life attained by individuals, many remarkable instances of which are on record. Among those on record in England may be mentioned Thomas Parr (died 1635) aged 153; Cardinal de Solis (d. 1785), aged 110; Charles Macklin, the actor (d. 1797) aged 107; Anthony Beresford (d. 1874) aged 101; Mrs. Bagster, wife of the well-known publisher, Samuel Bagster (d. 1887) aged 100; Sir Moses Montefiore (d. 1889), aged 100. The expectation of life taking the averages as given by several assurance offices, is as follows: Aged ten expectation 48·36 years longer life; twenty, 41·49; thirty, 34·43; forty, 27·28; fifty, 20·18; sixty, 13·77; seventy, 8·54; eighty, 4·78; ninety, 2·11. The average duration of life is longer for women than men.

Epizoötics (Gr. *epi*, "upon," and *zoon*, "an animal") are diseases of animals, which manifest a common character, and prevail at the same time over considerable tracts of country. A curious circumstance in connection with them is that they usually follow the same line of route as the diseases of the human race; and, as a rule, when there has been a great epidemic, it has been followed or accompanied by an equally destructive pestilence among animals. The cause of epizoötics is not

altogether clear, but there can be little doubt that insufficient food and overcrowding have great influence. Being apt to take on a low type of fever, they are better treated by supporting than by reducing remedies. Influenza in horses, and pleuro-pneumonia and vesicular epizoötic in cattle, are examples.

Ah! what avail the largest gifts of Heaven,
When drooping health and spirits go amiss?
How tasteless then whatever can be given!
Health is the vital principle of bliss,
And exercise of health.

—Thomson.

WEIGHT AND STATURE OF MAN.

AGE.	MALES.		FEMALES.	
	Feet.	Lbs.	Feet.	Lbs.
0 Years	1.64	7.06	1.69	6.42
2 "	2.60	25.01	2.56	23.53
4 "	3.04	31.38	3 00	28.67
6 "	3.44	38.80	3.38	35.29
9 "	4.00	49.95	3.92	47.10
11 "	4.36	59.77	4.26	56.57
13 "	4.72	75.81	4.60	72.65
15 "	5.07	96.40	4.92	89.04
17 "	5.36	116.56	5.10	104.34
18 "	5.44	127.59	5.13	112.55
20 "	5.49	132.46	5.16	115.30
30 "	5.52	140.38	5.18	119.89
40 "	5.52	140.42	5.18	121.81
50 "	5.49	139.96	5.04	123.86
60 "	5.38	136.07	4.97	119.76
70 "	5.33	131.27	4.97	113.60
80 "	5.29	127.54	4.94	108.80
90 "	5.29	127.54	4.94	108.81
Mean weight		103.66		93.73

The average weight of a male infant at birth, it will be seen, is a little over 7 lbs.: of a female infant, a little less than 6¼.

COMPOSITION AND DIGESTION OF FOODS.

FAT, WATER AND MUSCLE PROPERTIES.

100 PARTS.	WATER.	MUSCLE.	FAT.	100 PARTS.	WATER.	MUSCLE.	FAT.
Cucumbers	97.0	1.5	1.0	Mutton	44.0	12.5	40.0
Turnips	94.4	1.1	4.0	Pork	38.5	10.0	50.0
Cabbage	90.0	4.0	5.0	Beans	14.8	24.0	57.7
Milk, cows'	86.0	5.0	8.0	Buckwheat	14.2	8.6	75.4
Apples	84.0	5.0	10.0	Barley	14.0	15.0	68.8
Eggs, yolk of	79.0	15.0	27.0	Corn	14.0	12.0	73.0
Potatoes	75.2	1.4	22.5	Peas	14.0	23.4	60.0
Veal	68.5	10.1	1.6	Wheat	14.0	14.6	69.4
Eggs, white of	53.0	17.0	.0	Oats	13.6	17.0	66.4
Lamb	50.5	11.0	35.0	Rice	13.5	6.5	79 5
Beef	50.0	15.0	30.0	Cheese	10.0	65.0	19.0
Chicken	46.0	18.0	32.0	Butter			100.0

PERCENTAGE OF NUTRITION.

Raw cucumbers, 2; raw melons, 3; boiled turnips, 4½; milk, 7: cabbage, 7½; currants, 10; whipped eggs, 13· beets, 14; apples, 16; peaches, 20; boiled codfish, 21; broiled venison, 22; potatoes, 22½; fried veal, 24; roast pork, 24; roast poultry, 26; raw beef, 26; raw grapes, 27; raw plums, 29; broiled mutton, 30; oatmeal porridge, 75; rye bread, 79; boiled beans, 87, boiled rice 88; barley bread, 88: wheat bread, 90; baked corn bread, 91; boiled barley, 92; butter, 93; boiled peas, 93; raw oils, 94.

PERIODS OF DIGESTION.

Length of time required for digestion of various foods.

	HOURS.	MIN.		HOURS.	MIN.
Rice	1	0	Mutton, boiled	3	0
Eggs, raw	1	30	Beef, roast	3	0
Apples	1	30	Bread, fresh	3	15
Trout, boiled	1	30	Carrots, boiled	3	15
Venison, broiled	1	35	Turnips, "	3	30
Sago, boiled	1	45	Potatoes "	3	30
Milk "	2	0	Butter	3	30
Bread, stale	2	0	Cheese	3	30
Milk, raw	2	15	Oysters, stewed	3	30
Turkey, boiled	2	25	Eggs, hard	3	30
Goose, roast	2	30	Pork, boiled	3	30
Lamb, broiled	2	30	Fowl, roast	4	0
Potatoes	2	30	Beef, fried	4	0
Beans, boiled	2	30	Cabbage	4	30
Parsnips, boiled	2	30	Wild fowl	4	30
Oysters, raw	2	55	Pork, roast	5	15
Eggs, boiled	3	0	Veal, roast	5	30

BLEEDING AT THE NOSE.

Roll up a piece of paper and press it under the upper lip. In obstinate cases, blow a little gum arabic up the nostril through a quill, which will immediately stop the discharge; powdered alum, dissolved in water, is also good. Pressure by the finger over the small artery near the ala (wing) of the nose, on the side where the blood is flowing, is said to arrest the hemorrhage immediately. Sometimes by wringing a cloth out of very hot water, and laying it on the back of the neck, gives relief. Napkins wrung out of cold water must be laid across the forehead and nose, the hands dipped in cold water, and a bottle of hot water applied to the feet.

NEURALGIA.

Pain may have its seat along the course of any nerve. It receives different names corresponding to the seat of pain. Thus we hear of *facial* neuralgia, *inter-costal* neuralgia, *occipital* neuralgia, *sciatica*, or neuralgia of the sciatic nerve, *gastralgia*, or neuralgia of the stomach, etc., etc.

The pain of neuralgia varies in different cases and at different times from a slight dull ache to the most excruciating torture. The nerve which is the seat of pain, in many instances at least, is in a state of inflammation. It is usually tender, as shown by examination, at points where pressure can be made upon the nerve, and following an attack there is usually a certain soreness and tenderness over the seat of the pain.

Treatment.—It is impossible in this article to give the space which the subject demands. The treatment embraces a large number of remedies and many methods of procedure. That which has effected a permanent cure in one case may have no effect in another. In some cases the pain is so persistent as to tax the physician to the utmost, who finds a remedy after having almost exhausted the pharmacopœia.

Some form of opium will always afford temporary relief if taken in sufficient doses, and it is one of the most valuable curative remedies in many cases The patient is apt to be in poor flesh. In such a case, if a permanent cure is to be anticipated, the general health must be improved, and the body weight greatly increased. A method has, of late

years, been very successfully employed in sanitariums, where the patient is required to take the necessary amount of rest in bed, to take a large amount of the most nourishing food, at intervals of only a few hours, and accompanied with baths, massage and suitable tonic treatment. By this means the body weight is greatly increased, the general health built up, and this is almost always followed by entire and permanent relief from pain.

THE DREADED CONSUMPTION.

Of the total number of deaths the percentage traceable to consumption in the several States and Territories is as follows: Alabama, 9.6; Arizona, 6.1; Arkansas, 6.4; California, 15.6; Colorado, 8.2; Connecticut, 15.1; Dakota, 8.8; Delaware, 16.1; District of Columbia, 18.9; Florida, 8.3; Georgia, 7.9; Idaho, 6.8; Illinois, 10.3; Indiana, 12.6; Iowa, 9.9; Kansas, 7.3; Kentucky, 15.7; Louisiana, 10.4; Maine, 19.2; Maryland, 14.0; Massachusetts, 15.7; Michigan, 13.2; Minnesota, 9.3; Mississippi, 8.8; Missouri, 9.8; Montana, 5.6; Nebraska, 8.8; Nevada, 6.3; New Hampshire, 5.6; New Jersey, 8.9; New Mexico, 2.4; New York, 8.1; North Carolina, 9.5; Ohio, 13.8; Oregon, 12.1; Pennsylvania, 12.6; Rhode Island, 14.6; South Carolina, 9.8; Tennessee, 14.5; Texas, 6.5; Utah, 2.8; Vermont, 16.1; Virginia, 12.2; Washington, 13.2; West Virgina, 13.0; Wisconsin, 10.4; Wyoming, 2.6; Average, 12.0.

INSOMNIA.

Insomnia, or sleeplessness, is a symptom common to many nervous diseases, and one which requires prompt attention, as without sleep little good can be accomplished in other directions by treatment. The treatment must depend very much upon the age, occupation and other circumstances of the patient. If in a child, out-door play at games requiring exercise sufficient to produce fatigue should be encouraged.

In men and women worried by business or domestic cares, disappointments or anxieties, the case is much more serious. If possible, they should, for a time, leave home and business, when they will often leave their worries also behind them. Mental labor should be abandoned entirely, and physical labor or sports requiring little thought, of a kind most comformable to the tastes of the patient, and affording the most pleasant diversion, should be chosen and followed to the point of fatigue. A generous diet of the most nutritious food should be taken, and a comfortable spring-bed, in a well ventilated, cheerful room, should be provided. One of the bromides, with tonics, may be prescribed, together with meat and milk. In severe cases the hydrate of choral, in from fifteen to thirty-grain doses, may be given at bed-time.

COLDS AND HOARSENESS.

Borax has proved a most effective remedy in certain forms of colds. In sudden hoarseness or loss of voice in public speakers or singers, from colds, relief for an hour or so may be obtained by slowly dissolving, and partially swallowing, a lump of borax the size of a garden pea, or about three or four grains held in the mouth for ten or fifteen minutes before speaking or singing. This produces a profuse secretion of saliva, or "watering" of the mouth and throat, just as wetting brings back the missing notes to a flute when it is too dry.

A flannel dipped in boiling water, and sprinkled with turpentine, laid on the chest as quickly as possible, will relieve the most severe cold or hoarseness.

Another simple, pleasant remedy is furnished by beating up the white of one egg, adding to it the juice of one lemon, and sweetening with white sugar to taste. Take a teaspoonful from time to time. It has been known to effectually cure the ailment.

Or, bake a lemon or sour orange twenty minutes in a moderate oven. When done, open at one end and take out the inside. Sweeten with sugar or molasses. This is an excellent remedy for hoarseness.

An old time and good way to relieve a cold is to go to bed, and stay there, *drinking nothing*, not even water, for twenty-four hours, and eating as little as possible. Or, go to bed; put your feet in hot mustard and water; put a bran or oatmeal poultice on the chest; take ten grains of Dover's powder, and an hour afterwards a pint of hot gruel; in the morning, rub the body all over with a coarse towel, and take a dose of aperient medicine.

Violet, pennyroyal, or boneset tea, is excellent to promote perspiration in case of sudden chill. Care should be taken next day not to get chilled by exposure to fresh out-door air.

ASTHMA.

Asthma is caused by a spasm of the muscular fibers of the small bronchial tubes, which obstruct the outward flow of air from the lungs; hence the great distress for want of breath, and the loud wheezing sounds. The disease is of nervous origin, and is sometimes hereditary. It is generally worse at night.

Treatmeut.—There are many remedies which for a time relieve the bad symptoms, and a change of climate is almost always attended by relief. An attack may be brought on by any irritating smoke, or vapor or dust contained in the breathing air. The emanation from a feather pillow is sufficient in some persons to produce a paroxysm. The writer has found the following prescription of use in a greater number of cases than any other. It usually cuts short the attack within a few hours:

Iodide of potassium	90 grains.
Carbonate of ammonia	60 grains.
Syrup of orange peel	1 ounce.
Simple syrup	1 ounce.

Mix.

Take a teaspoonful every two to four hours until relieved.

CORYZA.

Coryza, or *cold in the head*, is an acute inflammation of the lining membrane of the nose. The eyes in this disease are also frequently inflamed and red and the tears flow over the face. The symptoms begin with an itching or tingling sensation in the nose, which is followed by sneezing. A slight fever accompanies these symptoms, and not unfrequently there is more or less headache.

Treatment.—Twenty or twenty-five drops of laudanum should be taken at bed-time, the first evening after the symptoms are noticed. Not unfrequently this will effect a cure. If not, another dose may be taken the following evening, and this repeated the next. If the cold is severe the laudanum should be taken night and morning until relieved. It is

also well to take four grains of quinine night and morning. Instead of laudanum, one-sixth of a grain of morphine, or a full dose of Dover's powder, will serve the purpose equally well. Treated in the beginning, nothing is surer than a perfect cure in from twenty-four to forty-eight hours, but if not effectually treated, it is apt to extend to the larynx and become a severe bronchitis, or eventuate in a chronic, low-grade inflammation of the nasal membrane, called *catarrh.*

CATARRH.

Catarrh is a name that properly applies to all inflammations or any part of the mucous membrane, such as catarrh of the stomach or of the bladder, but by common usage, unless qualified by another word, has come to mean a chronic inflammation of the nasal mucous membrane. It is a very troublesome disease, and is often very difficult to treat. Patients are frequently seen who have suffered from the disease for years. The inflammation is apt to extend through the eustachian tube to the ears, and sometimes with not only the effect to impair the hearing, but to quite destroy it. The odor is, in bad cases, most penetrating, rendering the patient very offensive to his associates.

Treatment.—In the beginning the most effective treatment is that recommended for *coryza.* Later, tonics should be given. Quinine in two-grain doses, three times a day; laudanum in small doses and iodide of potassium in five-grain doses three times a day. In the beginning powders and solutions snuffed up the nose usually do harm, and it is a question whether they ever do good in any stage. The most effective treatment for a chronic case is, perhaps, a change of climate. Some excellent cures have been known to result from a residence in Northern Wisconsin, or in the region of Lake Superior.

BRONCHITIS.

Bronchitis is an inflammation of the lining membrane of the trachea and bronchial tubes. It may be either acute or chronic. If acute, there will be a slight fever and considerable cough. The treatment should be the same as that advised for *coryza.*

Chronic Bronchitis usually eventuates from an acute attack. The disease may be of years' standing. Those cases of death of elderly people from exhaustion, attended by cough and expectoration, and accredited to consumption, may usually be put down as bronchitis. Consumption rarely attacks persons after 40 or 45 years of age.

Treatment should consist partly in good living and warm dressing. Any of the bitter tonics, with iron, may be taken, together with some form of opium to relieve the cough. Iodide of potassium in five-grain doses, with two grains of carbonate of ammonia, taken after meals, will be found very useful.

TYPHOID FEVER.

Typhoid Fever is a disease caused by bad sewerage, the odor from old privy vaults, or drinking water contaminated with human excrement, especially from typhoid-fever patients. It is a low grade of fever, which attacks a person but once. It comes on so gradually that it is hard to say when the disease began. It generally runs its course in spite of treatment. Treatment may save a case from a fatal termination, or

reduce its duration to the minimum, which is three weeks. At first the patient complains of fatigue, loss of appetite, mental dullness and lack of interest in his work. There may be diarrhœa. Pulse ranges from 90 to 110 per minute; temperature from 100 to 104 degrees. The skin is dry and of a bronze hue. There may be bleeding from the nose. The tongue will have a brown coat, which, if the patient is not given an abundance of water, will become very dry. The lips and teeth collect a dark brown or blackish, gum-like matter, called *sordies*. In the second week the patient may become more or less delirious, and, if not closely watched, may get out of bed, in consequence of delusions. It is a common thing for the patient to imagine himself away from home. Little red spots, like fleabites, may make their appearance upon the abdomen. If there has been diarrhœa, the abdomen may become distended with gas. Hemorrhage from the bowels may take place. During the third week any or all of these symptoms may become aggravated.

If the patient does well at the end of the third week, he will begin to improve, the tongue will clean, the skin become moist or wet with perspiration, and the mind perhaps become clear. He has not asked for anything, but now he may express a desire for food or drink.

The treatment for this disease, in a mild case, is simply good hygienic surroundings and care. On account of the low mental condition, he may not be conscious of his wants. Hence he may never call for water or food.

He should have milk and other nutritious food in such quantities as he can digest, at short but regular intervals.

The bowels will need attention. If there be diarrhœa, some mild astringents may be given, as fluid extract of logwood. If the bowels are distended by gas, spirits of turpentine may be given. If constipation ensue, some mild laxative, as castor-oil, syrup or tincture of rhubarb, or an enema of tepid water, will relieve the symptoms. The temperature and circulation can be controlled, as laid down under the head of fevers in general.

In bad cases any or all of the symptoms may be aggravated, and will need special attention.

Young persons are more likely to recover than persons advanced in life. They are also more liable to contract the disease.

LEAD COLIC.

Lead colic is caused by the poison from lead. The lead may be taken into the system by many different ways, without the knowledge of the patient. Persons manufacturing paints or working in shot factories or other places where lead is used may be poisoned. Painters are very liable to lead poisoning. Persons have been poisoned by sleeping in a newly painted room, or by using certain face washes and hair dyes which contain lead, or by drinking water which has stood in lead pipes, or beer or cider which has been for some time in contact with a lead faucet, and by many accidental or intentional adulterations of food. Lead poisoning is manifested by various affections of the nervous system, such as paralysis, as of the extensor muscles of the hand, and neuralgias, of which colic, or neuralgia of the intestines, is one.

The bowels are usually constipated. The pain is sometimes dull and heavy, and sometimes sharp and cutting. It usually comes on very gradually, beginning with slight pain, and grows worse until it may be-

some very severe. There is seldom entire relief from pain, but there are periods of great increase, when the paroxysms are excruciating. If not relieved by treatment, the pain is likely to continue for days, and perhaps for weeks, and attacks will frequently occur. Persons do not die from lead colic, although they may from other effects of lead poisoning. A blue line along the gums next the teeth is usually present in these cases.

Treatment should first be given as in ordinary colic. When the pain is relieved and the bowels moved, the following prescription should be taken, which will produce a permanent cure:

Iodide of potassium..... .....1 ounce.
Distilled water, ad.....1 ounce.

Mix.

Dose: As directed.

The above is a saturated solution. Begin with five drops in a wine glass of water three times a day after meals, and increase one drop each day until the patient is taking twenty-five to thirty drops three times a day.

RHEUMATISM.

Rheumatism is a constitutional disease, characterized by certain local manifestations. These manifestations are due to inflammation, acute or chronic, of the synovial membrane lining the joints, of certain serous membranes, particularly those of the heart, and of fibrous tissue elsewhere in the body. Rheumatism is classified as *acute articular rheumatism* and *chronic rheumatism.*

In acute articular rheumatism the lining membranes of the joints are inflamed. In the course of the disease certain complications involving internal organs are liable to arise. The parts more likely to become affected are the serous membranes, the *endocardium* and *pericardium* lining and surrounding the heart.

The attack usually begins suddenly. Sometimes there is a slight amount of fever for a day or two preceding the joint affection; sometimes the pain and tenderness of the joints precede the fever, but usually these symptoms appear together. The disease may attack any joint of the body, and is indeed very seldom confined to one or two. The affected joints are swollen, red and extremely tender. Pain is not so great except when attempting to move, or when disturbed or jarred. The slightest movement causes the most excruciating pain. Swelling is most apparent when the knees, ankles or wrists are the joints involved. The swelling is usually in proportion to the severity of the inflammation. One joint after another generally becomes involved. Sometimes upon attacking a new joint all tenderness and swelling disappear from the joints first involved. The fever ranges in this disease between 102 and 108 degrees. Profuse sweating is a common symptom.

The disease very rarely proves fatal. When it does it is due to the extension of the inflammation to the heart, and the development of *pericarditis.* Even then the number of deaths during the acute attack is very small, but in the fact that the heart is so frequently attacked lies the danger of the disease, for, as explained under the head of diseases of the heart, the great majority of valvular diseases of the heart are due to *endocarditis* developed during an attack of acute rheumatism. Usually, however, the lesion of the valves causes no inconvenience until a number

of years afterward. The heart is more likely to become involved the more intense the disease. Other organs, such as the pleura, the peritoneum and the membranes enveloping the brain, have been known to suffer inflammation during the attack, but it is extremely rare. The head is usually free from pain. The duration of the attack varies from ten days to five or six weeks. There are sometimes relapses. One who has once suffered from acute rheumatism is more liable to subsequent attacks.

Treatment: Nothwithstanding the popularity of salicylic acid, or the salicylate of soda, in the treatment of rheumatism during the last few years, we believe that as much or more may be accomplished by the use of what has been known as the *alkaline* treatment. The alkali, either bicarbonate of potassa or soda, should be given in full doses, every three or four hours. Lemon juice may be added to the dose and taken while effervescing. As soon as the urine is rendered alkaline (which may be told by testing with litmus paper, which turns to blue if dipped into an alkaline fluid), the dose should be greatly diminished, and taken thereafter only once or twice a day. Tonics are useful. Quinine in two-grain doses may be given. Tincture of aconite applied to the swollen joints often affords relief. Chloroform liniment or soap liniment is used for this purpose. The salicylate of soda is much employed—perhaps at this time more than any other remedy.

Chronic rheumatism differs from the acute variety in the degree of severity of the symptoms, and in their duration. In mild cases the patients are able to go about their work, but suffer more or less pain in the affected joints. In other cases, more severe, the patient is confined to his bed, and frequently, with those about their avocations, there is more or less deformity of the joints.

Treatment: The alkalies may be used in small doses; also the salicylate of soda. Iodide of potassium is sometimes very useful, and in malarious districts quinine is to be employed.

The local applications to the joints here are of more importance than in the acute variety. Tincture of aconite, tincture of iodine and chloroform liniment are very useful.

MALARIAL FEVER.—AGUE.

Intermittent fever is one form of malarial fever. It has cold, hot and sweating stages, with a normal interval following. The patient may go through these stages every day, every other day, or every third day. This disease is caused by decaying vegetable matter. It prevails in new countries, river bottoms, districts which overflow, or in the neighborhood of canals or mill-ponds. It may prevail in houses with bad cellars, or where the sills and floors are in a state of decay. It does not make its appearance while the land is under water, but when the water recedes and exposes the half rotten vegetable matter to the sun. Some physicians suppose this disease to be caused by a microscopic vegetable germ which enters the system, contaminating the blood.

Intermittent fever is not self-protecting nor self-limiting. Some persons are never free from it while they reside in a malarial district. It runs an indefinite course if not checked by remedial agents. If not treated, the blood of the patient becomes impoverished, the lips pale, the skin sallow, the muscles weak and the body emaciated. The spleen becomes large, vulgarly called an ague cake. Some persons may become acclimated, improve, and finally get well without medicine, but the ma-

jority would go from bad to worse and die, or become so weak as to have no physical endurance or resistance, and would finally succumb to some other disease which they, in the depraved state of the system, are not able to withstand. The system may become so surcharged with the poison as to cause death from the severity of the chill before reaction or the fever stage comes on. This is what is called a "congestive chill." Every chill is in reality a congestive chill—that is, during the chill some internal organ is congested, or contains an abnormal amount of blood; hence the variety of symptoms during this stage. One may have difficulty of breathing because of congestion of the lungs; another may have pain in the head; another, in the stomach or heart.

Instead of the cold, hot and sweating stages, the patient may have severe periodical pains along the course of a nerve. This constitutes one form of neuralgia. At another time, or another patient, instead of suffering from either chills or neuralgia, may have a periodical diarrhœa, or there may be hemorrhage from some part of the mucous membrane.

Treatment.—The night-air contains the malarial poison in greater abundance than that of the day, so that if persons must live in a malarial region, they can lessen the liability to contract disease by being in the house before sunset, and remaining there until after sunrise in the morning. An attack may be induced in some persons by eating anything which is difficult to digest. It becomes those who are susceptible to the influence of this virus to look well to their food.

Some preparation of Peruvian bark enters into almost every formula for the cure of intermittent fever. Sulphate of cinchona is the cheapest, but it is more likely to disturb the stomach. Cinchonidia is cheaper than quinine, and is like it in appearance. It is not as likely to disturb the stomach as the sulphate of cinchona, but more so than quinine. Quinine is more used because it is less irritating to the stomach, though it is of a higher price. Quinine is the king in this realm of remedies. If the interval between the paroxysms is short, we must give larger doses, and closer together. When the paroxysms are farther apart, we can give smaller doses—three or four grains every two hours. We believe we shall have better effect from small doses close together than by giving doses of five or ten grains, four or five hours apart. We need, in ordinary cases, to administer from twenty to thirty grains between the paroxysms. The taste of quinine can be disguised by putting it in cold coffee or tea. A few doses of bromo-hydric acid will prevent the disagreeable effects and the ringing in the ears produced by quinine.

Occasionally we meet with persons who cannot take quinine. We can use salicine in the same doses as quinine, or a little larger doses even.

Arsenic is used in chronic forms of the disease and may be used where quinine cannot be employed.

Nux vomica or strychnine may be used in combination with other remedies.

TYPHUS FEVER.

Typhus fever is a disease arising from the crowding of human beings into a small space, as in emigrant ships, in prisons and in the poorer quarters of large cities. Typhoid fever is produced from human effete matter thrown off from the bowels. Typhus is liable to become epidemic after famine or excessive privation of any kind. When once originated, it is contagious in densely populated districts; thence it may spread to cleaner and more healthy parts of the city.

The attack is more sudden and its duration shorter, and the temperature and pulse somewhat higher than in typhoid. The eruption on the skin is somewhat like measles. Gangrenous spots are liable to appear, and may assume a very serious aspect. The tongue becomes contracted, dry and black; the bowels are constipated; no appetite; delirium is present, and is followed by coma, in which condition the patient may sink and die, or gradually pass into a more natural sleep, from which he may wake convalescent.

Treatment similar to typhoid. Personal cleanliness; perfect ventilation; good, easily-digested food; milk in its various forms; an abundance of cold water. The circulation and temperature are to be controlled as directed in fevers in general.

HOW TO CATCH COLD.

A great many cannot see why it is they do not take cold when exposed to cold winds and rain. The fact is, and ought to be more generally understood, that nearly every cold is contracted indoors, and is not directly due to the cold outside, but to the heat inside. A man will go to bed at night feeling as well as usual, and get up in the morning with a royal cold. He goes peeking around in search of cracks and keyholes and tiny drafts. Weather-strips are procured, and the house made as tight as a fruit can. In a few days more the whole family has colds.

Let a man go home, tired or exhausted, eat a full supper of starchy and vegetable food, occupy his mind intently for a while, go to bed in a warm, close room, and if he doesn't have a cold in the morning it will be a wonder. A drink of whisky or a glass or two of beer before supper will facilitate matters very much.

People swallow more colds down their throats than they inhale or receive from contact with the air, no matter how cold or chilly it may be. Plain, light suppers are good to go to bed on, and are far more conducive to refreshing sleep than a glass of beer or a dose of chloral. In the estimation of a great many this statement is rank heresy, but in the light of science, common sense and experience, it is gospel truth.

Pure air is strictly essential to maintain perfect health. If a person is accustomed to sleeping with the windows open there is but little danger of taking cold winter or summer. Persons who shut up the windows to keep out the "night air," make a mistake, for at night the only air we breath is "night air," and we need good air while asleep as much or even more than at any other time of day. Ventilation can be accomplished by simply opening the window an inch at the bottom and also at the top, thus letting the pure air in, the bad air going outward at the top. Close, foul air poisons the blood, brings on disease which often results in death; this poisoning of the blood is only prevented by pure air, which enters the lungs, becomes charged with *waste* particles, then thrown out, and which are poisonous if taken back again. It is estimated that a grown person corrupts *one gallon of pure air every minute*, or twenty-five barrels full in a single night, in breathing alone.

CURE OF FELONS.

Take common rock salt, as used for salting down pork or beef, dry in an oven, then pound it fine and mix with spirits of turpentine in equal parts; put it in a rag and wrap it around the parts affected; as it

gets dry put on more, and in twenty-four hours you are cured. The felon will be dead.

Or purchase the herb of stramonium at the druggist's; steep it and bind it on the felon; as soon as cold, put on new, warm herbs. It will soon kill it, in a few hours at least.

Or saturate a bit of grated wild turnip, the size of a bean, with spirits of turpentine, and apply it to the affected part. It relieves the pain at once; in twelve hours there will be a hole to the bone, and the felon destroyed; then apply healing salve, and the finger is well.

Another way to cure a felon: Fill a tumbler with equal parts of fine salt and ice; mix well. Sink the finger in the center, allow it to remain until it is nearly frozen and numb; then withdraw it, and when sensation is restored, renew the operation four or five times, when it will be found the disease is destroyed. This must be done before pus is formed.

A simple remedy for felons, relieving pain at once, no poulticing, no cutting, no "holes to the bone," no necessity for healing salve, but simple oil of cedar applied a few times at the commencement of the felon, and the work is done.

PREVENTION OF CHOLERA.

Much may undoubtedly be done to prevent this dreaded disease by attention to cleanliness, and by disinfectants, and none of these things should be omitted.

There is, however, in nearly all cases, a premonitory diarrhœa, and if this be effectually treated there is little danger of the full development of the disease. Prudent and intelligent people who give prompt attention to any occurrence of diarrhœa during the prevalence of the disease rarely have cholera.

If the diarrhœa occurs in a young child, full doses of paregoric should be given every time the bowels move. If more than eight years old, full doses of laudanum should be given, together with acetate of lead and bismuth. For an adult, twenty-five to forty drops of laudanum, or, instead, one-sixth to one-quarter grain of morphine after every movement of the bowels. Small doses of red pepper, in addition to the opiates, are useful. The above treatment, taken in time, will prevent the further development of the disease in almost every case.

The treatment of cholera, when fully developed, does not differ during the first stages from that recommended during the premonitory diarrhœa, except that the opiates should be given in larger doses. After collapse has taken place there is little that can be done with any hope of success. Sometimes active treatment in this stage does harm; it rarely does good. The body should be kept warm by the application of dry heat. The nutrition should be kept up, and brandy and water may be given frequently in small quantities.

A FAMOUS CHOLERA MIXTURE.

More than forty-years ago, when it was found that prevention for the Asiatic cholera was easier than cure, the learned doctors of both hemispheres drew up a prescription, which was published (for working people) in *The New York Sun*, and took the name of "The Sun Cholera Mixture." It was found to be the best remedy for loosenesss of the bowels ever yet devised. It is to be commended for several reasons. It is not to be mixed with liquor, and therefore will not be used as an alcoholic bever-

age. Its ingredients are well known among all the common people, and it will have no prejudice to combat; each of the materials is in equal proportions to the others, and it may therefore be compounded without professional skill; and as the dose is so very small, it may be carried in a tiny phial in the waistcoat pocket, and be always at hand. It is:

Take equal parts of tincture of cayenne, tincture of opium, tincture of rhubarb, essence of peppermint, and spirits of camphor. Mix well. Dose fifteen to thirty drops in a wine glass of water, according to age and violence of the attack. Repeat every fifteen or twenty minutes until relief is obtained. No one who takes it in time will ever have the cholera. Even when no cholera is anticipated, it is a valuable remedy for ordinary summer complaints, and should always be kept in readiness.

REMEDIES FOR CROUP.

Croup, it is said, can be cured in one minute, and the remedy is simply alum and sugar. Take a knife or grater, and shave off in small particles about a teaspoonful of alum; then mix it with twice its amount of sugar, to make it palatable, and administer it as quickly as possible. Almost instantaneous relief will follow. Turpentine is said to be an excellent remedy for croup. Saturate a piece of flannel, and apply it to the chest and throat, and take inwardly three or four drops on a lump of sugar.

Another remedy: Give a teaspoonful of ipecacuanha wine every few minutes, until free vomiting is excited.

Another recipe said to be most reliable: Take two ounces of the wine of ipecac, hive syrup four ounces, tincture of bloodroot two ounces. Mix it well.

Dose, for a child one year old, five to ten drops; two years, eight to twelve drops; three years, twelve to fifteen drops; four years old, fifteen to twenty drops; five years old, twenty to twenty-five drops, and older children in proportion to age. Repeat as often as shall be necessary to procure relief. If it is thought best to produce vomiting, repeat the dose every ten or fifteen minutes for a few doses.

VALUE OF HOT WATER.

One of the simplest and most effectual means of relieving pain is by the use of hot water, externally and internally, the temperature varying according to the feelings of the patient. For bruises, sprains, and similar accidental hurts, it should be applied immediately, as hot as can be borne, by means of a cloth dipped in the water and laid on the wounded part, or by immersion, if convenient, and the treatment kept up until relief is obtained. If applied at once, the use of hot water will generally prevent, nearly, if not entirely, the bruised flesh from turning black. For pains resulting from indigestion, and known as wind colic, etc., a cupful of hot water, taken in sips, will often relieve at once. When that is insufficient, a flannel folded in several thicknesses, large enough to fully cover the painful place, should be wrung out of hot water and laid over the seat of the pain. It should be as hot as the skin can bear without injury, and be renewed every ten minutes or oftener, if it feels cool, until the pain is gone. The remedy is simple, efficient, harmless and within the reach of every one; and should be more generally used than it is. If used along with common sense, it might save many a doctor's bill, and many a course of drug treatment as well.

THE CURE OF EARACHE.

Take a bit of cotton batting, put on it a pinch of black pepper, gather it up and tie it, dip it in sweet oil, and insert it in the ear; put a flannel bandage over the head to keep it warm; it often gives immediate relief

Tobacco smoke, puffed into the ear, has oftentimes been effectual.

Another remedy: Take equal parts of tincture of opium and glycerine. Mix, and from a warm teaspoon drop two or three drops into the ear, and stop the ear tight with cotton, and repeat every hour or two. If matter should form in the ear, make a suds with castile soap and warm water about 100° F., or a little more than milk warm, and have some person inject it into the ear while you hold that side of the head the lowest. If it does not heal in due time, inject a little carbolic acid and water in the proportion of one drachm of the acid to one pint of warm water each time after using the suds

NOTES ON FOOD PRODUCTS.

RELATIVE VALUE OF FOOD (BEEF PAR).

Oysters, 22; milk, 24; lobsters, 50; cream, 56; codfish, 68; eggs, 72; turbot, 84; mutton, 87; venison, 89; veal, 92; fowl, 94; herring, 100; beef, 100; duck, 104; salmon, 108; pork, 116; butter, 124; cheese, 155.

PERCENTAGE OF CARBON IN FOOD.

Cabbage, 3; beer, 4; carrots, 5; milk 7; parsnips, 8; fish, 9; potatoes, 12; eggs, 16; beef, 27; bread, 27; cheese, 36; peas, 36; rice, 38; corn, 38; biscuit, 42; oatmeal, 42; sugar, 42; flour, 46; bacon, 54; cocoa, 69; butter, 79.

FOOT-TONS OF ENERGY PER OUNCE OF FOOD.

Cabbage, 16; carrots, 20; milk, 24; ale, 30; potatoes, 38; porter, 42; beef, 55; egg, 57; ham, 66; bread, 83; egg (yolk), 127; sugar, 130; rice, 145; flour, 147; arrowroot, 151; oatmeal, 152; cheese, 168; butter, 281.

LOSS OF MEAT IN COOKING.

100 lbs. raw beef	= 67 lbs. roast	100 lbs. raw fowl	= 80 roast
100 " "	= 74 " boiled	100 " "	= 87 boiled
400 " raw mutton	= 75 " roast	100 " raw fish	= 94 boiled

THE PERCENTAGE OF STARCH.

In common grains is as follows, according to Prof. Yeomans: Rice flour, 84 to 85; Indian meal, 77 to 80; oatmeal, 70 to 80; wheat flour, 39 to 77; barley flour, 67 to 70; rye flour, 50 to 61; buckwheat, 52; peas and beans, 42 to 43; potatoes, (75 per cent water), 13 to 15.

THE DEGREES OF SUGAR.

In various fruits are: Peach, 1.6; raspberry, 4.0; strawberry, 5.7. currant, 6.1; gooseberry, 7.2; apple, 7.9; mulberry, 9.2; pear, 9.4; cherry, 10.8; grape, 14.9.

EASY OF DIGESTION.—Arrowroot, asparagus, cauliflower, baked apples, oranges, grapes, strawberries, peaches.

MODERATELY DIGESTIBLE.—Apples, raspberries, bread, puddings, rhubarb, chocolate, coffee, porter.

HARD TO DIGEST.—Nuts, pears, plums, cherries, cucumbers, onions, carrots, parsnips.

WONDERS OF THE HUMAN BODY.

The skin contains more than two million openings, which are the outlets of an equal number of sweat-glands. The human skeleton consists of more than two hundred distinct bones. An amount of blood equal to the whole quantity in the body passes through the heart once every minute. The full capacity of the lungs is about three hundred and twenty cubic inches. About two-thirds of a pint of air is inhaled and exhaled at each breath in ordinary respiration. The stomach daily produces nine pounds of gastric juice for digestion of food; its capacity is about five pints. There are more than five hundred separate muscles in the body, with an equal number of nerves and blood-vessels. The

weight of the heart is from eight to twelve ounces. It beats one hundred thousand times in twenty-four hours. Each perspiratory duct is one-fourth of an inch in length, of the whole about nine miles. The average man takes five and one-half pounds of food and drink each day, which amounts to one ton of solid and liquid nourishment annually. A man breathes eighteen times a minute, and three thousand cubic feet, or about three hundred and seventy-five hogsheads of air every hour of his existence.

GYMNASTICS AND PHYSICAL DEVELOPMENT.

The principal methods of developing the physical man now prescribed by trainers are exercise with dumbbells, the bar bell and the chest weight. The rings and horizontal and parallel bars are also used, but not nearly to the extent that they formerly were. The movement has been all in the direction of the simplification of apparatus; in fact, one well-known teacher of the Boston Gymnasium, when asked his opinion, said: "Four bare walls and a floor, with a well-posted instructor, is all that is really required for a gymnasium."

Probably the most important as well as the simplest appliance for gymnasium work is the wooden dumbbell, which has displaced the ponderous iron bell of former days. Its weight is from three-quarters of a pound to a pound and a half, and with one in each hand a variety of motions can be gone through, which are of immense benefit in building up or toning down every muscle and all vital parts of the body.

The first object of an instructor in taking a beginner in hand is to increase the circulation. This is done by exercising the extremities, the first movement being one of the hands, after which come the wrists, then the arms, and next the head and feet. As the circulation is increased, the necessity for a larger supply of oxygen, technically called "oxygen-hunger," is created, which is only satisfied by breathing exercises, which develop the lungs. After the circulation is in a satisfactory condition, the dumbbell instructor turns his attention to exercising the great muscles of the body, beginning with those of the back, strengthening which holds the body erect, thus increasing the chest capacity, invigorating the digestive organs, and in fact all the vital functions. By the use of very light weights an equal and and symmetrical development of all part of the body is obtained, and then there are no sudden demands on the heart and lungs.

After the dumbbell comes exercise with the round, or bar bell. This is like the dumbbell, with the exception that the bar connecting the balls is four or five feet, instead of a few inches in length. Bar bells weigh from one to two pounds each, and are found most useful in building up the respiratory and digestive systems, their especial province being the strengthening of the erector muscles and inereasing the flexibility of the chest.

Of all fixed apparatus in use the pulley weight stands easily first in importance. These weights are available for a greater variety of objects than any other gymnastic appliance, and can be used either for general exercise or for strengthening such muscles as most require it. With them a greater localization is possible than with the dumbbell, and for this reason they are recommended as a kind of supplement to the latter. As chest developers and correctors of round shoulders they are most effective. As the name implies, they are simply weights attached to ropes, which pass over pulleys, and are provided with handles. The common

pulley is placed at about the height of the shoulder of an average man, but recently those which can be adjusted to any desired height have been very generally introduced.

When more special localization is desired than can be obtained by means of the ordinary apparatus, what is known as the double-action chest weight is used. This differs from the ordinary kind in being provided with several pulleys, so that the strain may come at different angles. Double-action weights may be divided into three classes—high, low and side pulleys—each with its particular use.

The highest of all, known as the giant pulleys, are made especially for developing the muscles of the back and chest, and by stretching or elongating movements to increase the interior capacity of the chest. If the front of the chest is full and the back or side chest deficient, the pupil is set to work on the giant pulley. To build up the side-walls he stands with the back to the pulley-box and the left heel resting against it; the handle is grasped in the right hand if the right side of the chest is lacking in development, and then drawn straight down by the side; a step forward with the right foot, as long as possible, is taken, the line brought as far to the front and near the floor as can be done, and then the arm, held stiff, allowed to be drawn slowly up by the weight. To exercise the left side the same process is gone through with, the handle grasped in the left hand. Another kind of giant pulley is that which allows the operator to stand directly under it, and is used for increasing the lateral diameter of the chest. The handles are drawn straight down by the sides, the arms are then spread and drawn back by the weights. Generally speaking, high pulleys are most used for correcting high, round shoulders; low pulleys for low, round shoulders; side pulleys for individual high or low shoulders, and giant pulleys for the development of the walls of the chest and to correct spinal curvature.

The traveling rings, a line of iron rings covered with rubber and attached to long ropes fastened to the ceiling some ten feet apart, are also valuable in developing the muscles of the back, arms and sides. The first ring is grasped in one hand and a spring taken from an elevated platform. The momentum carries the gymnast to the next ring, which is seized with the free hand, and so the entire length of the line is traversed. The parallel bars, low and high, the flying rings, the horizontal bar, and the trapeze all have their uses, but of late years they have been relegated to a position of distinct inferiority to that now occupied by the dumbbells and pulley-weights.

SECRETS OF GOOD HEALTH.

Pure atmospheric air is composed of nitrogen, oxygen and a very small proportion of carbonic acid gas. Air once breathed has lost the chief part of its oxygen, and acquired a proportionate increase of carbonic acid gas. Therefore, health requires that we breathe the same air once only.

The solid part of our bodies is continually wasting, and requires to be repaired by fresh substances. Therefore, food which is to repair the loss should be taken with due regard to the exercise and waste of the body.

The fluid parts of our bodies also wastes constantly; there is but one fluid in animals, which is water. Therefore, water only is necessary, and no artifice can produce a better drink.

The fluid of our bodies is to the solid in proportion as nine to one.

Therefore, a like proportion should prevail in the total amount of food taken.

Light exercises an important influence upon the growth and vigor of animals and plants. Therefore, our dwellings should freely admit the solar rays.

Decomposing animal and vegetable substances yield various noxious gases which enter the lungs and corrupt the blood. Therefore, all impurities should be kept away from our abodes, and every precaution be observed to secure a pure atmosphere.

Warmth is essential to all the bodily functions. Therefore, an equal bodily temperature should be maintained by exercise, by clothing or by fire.

Exercise warms, invigorates and purifies the body; clothing preserves the warmth the body generates; fire imparts warmth externally. Therefore, to obtain and preserve warmth, exercise and clothing are preferable to fire.

Mental and bodily exercise are equally essential to the general health and happiness. Therefore, labor and study should succeed each other

Man will live most healthfully upon simple solids and fluids, of which a sufficient but temperate quantity should be taken. Therefore, an excessive use in strong drinks, tobacco, snuff, opium and all mere indulgences, should be avoided.

Sudden alternations of heat and cold are dangerous (especially to the young and the aged). Therefore, clothing in quality and quantity should be adapted to the alternations of night and day and of the seasons; and drinking cold water when the body is hot, and hot tea and soups when cold, are productive of many evils.

SUNDRY HEALTH HINTS.

TO EASE SWOLLEN FEET. Policemen, mail carriers, and others whose occupation keeps them on their feet a great deal, often are troubled with chafed, sore and blistered feet, especially in extreme hot weather, no matter how comfortably their shoes may fit. A powder is used in the German army for sifting into the shoes and stockings of the foot soldiers, called "Fusstreupulver," and consists of three parts salicylic acid, ten parts starch and eighty-seven parts pulverized soapstone.

RULES FOR FAT PEOPLE AND FOR LEAN. To increase the weight: Eat to the extent of satisfying a natural appetite, of fat meats, butter, cream, milk, cocoa, chocolate, bread, potatoes, peas, parsnips, carrots, beets, farinaceous foods, as Indian corn, rice, tapioca, sago, corn starch, pastry, custards, oatmeal, sugar, sweet wines, and ale. Avoid acids. Exercise as little as possible, and sleep all you can.

To reduce the weight: Eat to the extent of satisfying a natural appetite, of lean meat, poultry, game, eggs, milk moderately, green vegetables, turnips, succulent fruits, tea or coffee. Drink lime juice, lemonade and acid drinks. Avoid fat, butter, cream, sugar, pastry.

WHEN QUININE WILL BREAK UP A COLD. It is surprising, says a family physician, how certainly a cold may be broken up by a timely dose of quinine. When first symptoms make their appearance, when a little languor, slight hoarseness and ominous tightening of the nasal membranes follow exposure to draughts or sudden chill by wet, five grains of this useful alkaloid are sufficient in many cases to end the trouble. But

it must be done promptly. If the golden moment passes, nothing suffices to stop the weary sneezing, handkerchief using, red nose and woe-begone looking periods that certainly follow.

A MISTAKEN IDEA. The old adage, "Feed a cold and starve a fever," is characterized by the *Journal of Health* as very silly advice. If anything, the reverse would be nearer right. When a person has a severe cold it is best for him to eat very lightly, especially during the first few days of the attack.

BATHING. There has been a great deal written about bathing. The surface of the skin is punctured with millions of little holes called pores. The duty of these pores is to carry the waste matter off. For instance, perspiration. Now, if these pores are stopped up they are of no use, and the body has to find some other way to get rid of its impurities. Then the liver has more than it can do. Then we take a liver pill when we ought to clean out the pores instead. The housewife is very particular to keep her sieve in good order; after she has strained a substance through it she washes it out carefully with water, because water is the best thing known. That is the reason water is used to bathe in. But the skin is a little different from a sieve, because it is willing to help along the process itself. All it needs is a little encouragement and it will accomplish wonders. What the skin wants is rubbing. If you should quietly sit down in a tub of water and as quietly get up and dry off without rubbing, your skin wouldn't be much benefited.

The water would make it a little soft, especially if it was warm. But rubbing is the great thing. Stand where the sunlight strikes a part of your body, then take a dry brush and rub it, and you will notice that countless little flakes of cuticle fly off. Every time one of these flakes is removed from the skin your body breathes a sigh of relief. An eminent German authority contends that too much bathing is a bad thing. There is much truth in this. Soap and water are good things to soften up the skin, but rubbing is what the skin wants. Every morning or every evening, or when it is most convenient, wash the body all over with water and a little ammonia, or anything which tends to make the water soft; then rub dry with a towel, and after that go over the body from top to toe with a dry brush. Try this for two or three weeks, and your skin will be like velvet.

TEA AND COFFEE. Tea is a nerve stimulant, pure and simple, acting like alcohol in this respect, without any value that the latter may possess as a retarder of waste. It has a special influence upon those nerve centers that supply will power, exalting their sensibility beyond normal activity, and may even produce hysterical symptoms, if carried far enough. Its active principle, theine, is an exceedingly powerful drug, chiefly employed by nerve specialists as a pain destroyer, possessing the singular quality of working toward the surface. That is to say, when a dose is administered hypodermically for sciatica, for example, the narcotic influence proceeds outward from the point of injection, instead of inward toward the centers, as does that of morphia, atropia, etc. Tea is totally devoid of nutritive value, and the habit of drinking it to excess, which so many American women indulge in, particularly in the country, is to be deplored as a cause of our American nervousness.

Coffee, on the contrary, is a nerve food. Like other concentrated foods of its class, it operates as a stimulant also, but upon a different set of nerves from tea. Taken strong in the morning, it often produces diz-

ziness and that peculiar visual symptom of overstimulus which is called *muscæ volitantes*—dancing flies. But this is an improper way to take it, and rightly used it is perhaps the most valuable liquid addition to the morning meal. Its active principle, caffeine, differs in all physiological respects from theine, while it is chemically very closely allied, and its limited consumption makes it impotent for harm.

To Straighten Round Shoulders. A stooping figure and a halting gait, accompanied by the unavoidable weakness of lungs incidental to a narrow chest, may be entirely cured by a very simple and easily-performed exercise of raising one's self upon the toes leisurely in a perpendicular position several times daily. To take this exercise properly one must take a perfectly upright position, with the heels together and the toes at an angle of forty-five degrees. Then drop the arms lifelessly by the sides, animating and raising the chest to its full capacity muscularly, the chin well drawn in, and the crown of the head feeling as if attached to a string suspended from the ceiling above. Slowly rise upon the balls of both feet to the greatest possible height, thereby exercising all the muscles of the legs and body; come again into standing position without swaying the body backward out of the perfect line. Repeat this same exercise, first on one foot, then on the other. It is wonderful what a straightening-out power this exercise has upon round shoulders and crooked backs, and one will be surprised to note how soon the lungs begin to show the effect of such expansive development.

Care of the Eyes. In consequence of the increase of affections of the eye, a specialist has recently formulated the following rules to be observed in the care of the eyes for school work: A comfortable temperature, dry and warm feet, good ventilation; clothing at the neck and other parts of the body loose; posture erect, and never read lying down or stooping. Little study before breakfast or directly after a heavy meal; none at all at twilight or late at night; use great caution about studying after recovery from fevers; have light abundant, but not dazzling, not allowing the sun to shine on desks or on objects in front of the scholars, and letting the light come from the left hand or left and rear; hold book at right angles to the line of sight or nearly so; give eyes frequent rest by looking up. The distance of the book from the eye should be about fifteen inches. The usual indication of strain is redness of the rim of the eyelid, betokening a congested state of the inner surface, which may be accompanied with some pain. When the eye tires easily rest is not the proper remedy, but the use of glasses of sufficient power to aid in accommodating the eye to vision.

How and When to Drink Water. According to Doctor Leuf, when water is taken into the full or partly full stomach, it does not mingle with the food, as we are taught, but passes along quickly between the food and lesser curvative toward the pylorus, through which it passes into the intestines. The secretion of mucus by the lining membrane is constant, and during the night a considerable amount accumulates in the stomach; some of its liquid portion is absorbed, and that which remains is thick and tenacious. If food is taken into the stomach when in this condition, it becomes coated with this mucus, and the secretion of the gastric juice and its action are delayed. These facts show the value of a goblet of water before breakfast. This washes out the tenacious mucus, and stimulates the gastric glands to secretion. In old and feeble persons water should not be taken cold, but it may be with great advantage taken warm or hot. This removal of the accumu-

lated mucus from the stomach is probably one of the reasons why taking soup at the beginning of a meal has been found so beneficial.

THE HUMAN PULSE.

The phenomenon known as the arterial pulse or arterial pulsation is due to the distension of the arteries consequent upon the intermittent injection of blood into their trunks, and the subsequent contraction which results from the elasticity of their walls. It is perceptible to the touch in all excepting very minute arteries, and, in exposed positions, is visible to the eye. The pulse is usually examined at the radial artery at the wrist, the advantages of that position being that the artery is very superficial, and that it is easily compressed against the bone. It is usual and convenient, though not quite accurate, to include under the term the conditions observed between the beats, as well as those produced by them. The condition of the pulse depends mainly on two factors, each of which may vary independently of the other: *first*, the contraction of the heart, which propels the stream of blood along the artery; and *second*, the resistance in the small arteries and capillaries, which controls the rate at which it leaves the artery. The first determines the frequency and rhythm of the pulse and the force of the beats; but the tension of the artery between them and their apparent duration depend mainly upon the peripheral resistance. "Feeling the pulse," therefore, gives important information besides the rate of the heart's action, and implies much more than the mere counting of pulsations. Dr. Broadbent says, "A complete account of the pulse should specify (1) the frequency—*i.e.* the number of beats per minute, with a note of any irregularity or intermission or instability of the rhythm; (2) the size of the vessel; (3) the degree of distension of the artery between the beats; (4) the character of the pulsation – whether its access is sudden or gradual, its duration short or long, its subsidence abrupt or slow, note being taken of dicrotism when present; (5) the force or strength of both the constant and variable pressure within the artery, as measured by its compressibility; (6) the state of the arterial walls."

The frequency of the pulse varies with age, from 130 to 140 per minute at birth to 70 to 75 in adult males, and with sex, being six or eight beats more in adult females. In some individuals it deviates considerably from this standard, and may even be habitually below forty or above ninety without any signs of disease. It is increased by exertion or excitement, by food or stimulants, diminished in a lying posture or during sleep. In disease (acute hydrocephalus, for example) the pulse may reach 150 or even 200 beats; or, on the other hand (as in apoplexy and in certain organic affections of the heart), it may be as slow as between thirty and twenty.

The normal regular rhythm of the pulse may be interfered with either by the occasional dropping of a beat (intermission), or by variations in the force of successive beats, and in the length of the intervals separating them (irregularity). These varieties often occur in the same person, but they may exist independently of each other. Irregularity of the pulse is natural to some persons; in others it is the mere result of debility; but it may be caused by the most serious disorders, as by disease of the brain, or by organic disease of the heart.

The other qualities of the pulse are much more difficult to recognize though of no less importance. The degree of tension or resistance to

compression by the fingers varies greatly: in a soft or "low tension" pulse the artery may be almost imperceptible between the beats; in a hard or "high tension" pulse it may be almost incompressible. An unduly soft pulse is usually an indication of debility; an unduly hard one is most often characteristic of disease of the kidneys and gout. But the tension, like the frequency of the pulse, undergoes considerable variations in health from temporary causes, and may in certain individuals be habitually above or below the average without actual disease.

The force of the beats is a measure of the vigor and efficiency of the heart's action. A strong pulse is correctly regarded as a sign of a vigorous state of the system; it may, however, arise from hypertrophy of the left ventricle of the heart, and remain as a persistent symptom even when the general powers are failing. As strength of the pulse usually indicates vigor, so weakness of the pulse indicates debility. Various expressive adjectives have been attached to special conditions of the pulse, into the consideration of which our space will not permit us to enter. Thus, we read of the jerking pulse, the hobbling pulse, the corded pulse, the wiry pulse, the thrilling pulse, the rebounding pulse, etc. The full significance of changes of the pulse in disease can only be appreciated by considering them in connection with the other signs and symptoms of the case.

THE PHILOSOPHY OF EATING.

Food consists of substances taken into the stomach for the purpose of digestion, or of conversion into blood. Food is rendered necessary by the waste of the system. Food is the primary source of nervous and muscular power. Food which supplies calorific power is termed heat-forming, respiratory, carbonaceous, or fuel food, and consists of starchy, saccharine, or oleaginous bodies which contain a preponderance of carbon, or of carbon and hydrogen. Food which supplies dynamical, mechanical and mental power, is termed histogenetic (tissue forming), nitrogenous, azotized, proteinous or albuminous; and consists of substances which are comparatively rich in nitrogen, as milk, eggs, flesh, cheese, peas, beans and other bodies containing fibrin, albumen, caseine or gluten. A small portion of the respiratory food also probably contributes to the formation of the tissues; and likewise a portion of histogenetic or albuminous food to the development of the animal heat. The student and the hard-laboring professional man require even more tissue-forming food than the ordinary physical laborer. A due supply of animal food is necessary to the development of a high civilization; that is to the development of races who are capable of sustained muscular and mental labor. Alcohol, either strong or dilute, cannot possess any histogenetic power from its deficiency of nitrogen; and, as far as the results of modern experiments can show, is neither oxidized nor burnt in the system, and therefore is probably neither a heat-former nor a flesh-former. It is consequently deficient in true food power, or, in other words, can neither nourish the body nor develop heat. A due mixture of heat-forming and flesh-forming food is most beneficial, economizing both food and digestive (vital or nervous) power. An excess of animal food is much more injurious than a corresponding excess of vegetable food. Cooking renders food more savory, wholesome and digestible, and destroys the parasitic animals which might otherwise excite serious if not fatal disease; it saves food, and enables the same amount of digestive (vital) power to do more effective work, and diminishes the quantity which would otherwise pass

away undigested. Any system of instruction in cooking which does not include some knowledge of the chemistry and physiology of food must be defective.

WHAT IS FOOD?

How is it converted into blood? How does the blood circulate? And how is the body nourished and kept in health? Are questions of the greatest importance in their relation to public health and morality, and should be generally taught in our schools. The following may be taken as correct as to the qualities of human food mentioned, and their characteristics when introduced into the stomach. Beef: When it is the flesh of a bullock of middle age, it affords good and strong nourishment, and is peculiarly well adapted to those who labor, or take much exercise. It will often sit easy upon stomachs that can digest no other kind of food; and its fat is almost as easily digested as that of veal. Veal is a proper food for persons recovering from indisposition, and may even be given to febrile patients in a very weak state, but it affords less nourishment than the flesh of the same animal in a state of maturity. The fat of it is lighter than that of any other animal, and shows the least disposition to putrescency. Veal is a very suitable food in costive habits; but of all meats it is least calculated for removing acidity from the stomach. Mutton, from the age of four to six years, and fed on dry pasture, is an excellent meat. It is of a middle kind between the firmness of beef and the tenderness of veal. The lean part of mutton, however, is the most nourishing and conducive to health, the fat being hard of digestion. The head of the sheep, especially when divested of the skin, is very tender; and the feet, on account of the jelly they contain, are highly nutritive. Lamb is not so nourishing as mutton; but it is light and extremely suitable to delicate stomachs. House lamb, though much esteemed by many, possesses the bad qualities common to the flesh of all animals reared in an unnatural manner. Pork affords rich and substantial nourishment; and its juices are wholesome when properly fed, and when the animal enjoys pure air and exercise. But the flesh of hogs reared in towns is both hard of digestion and unwholesome. Pork is particularly improper for those who are liable to any foulness of the skin.

DOES ALCOHOL HELP?

It is almost proverbial, that a dram is good for promoting the digestion; but this is an erroneous notion, for though a dram may give a momentary stimulus to the coats of the stomach, it tends to harden the flesh, and of course to make it more indigestible. Smoked hams are a strong meat, and rather fit for a relish than a diet. It is the quality of all salted meats that the fibers become rigid; and therefore more difficult of digestion; and when to this is added smoking, the heat of the chimney occasions the salt to concentrate, and the fat between the muscles sometimes to become rancid. Bacon is also of an indigestible quality, and is apt to turn rancid on weak stomachs; but for those in health it is an excellent food, especially when used with fowl or veal, and even eaten with peas, cabbage or cauliflowers. Goat's flesh is hard and indigestible, but that of kids is tender as well as delicious, and affords good nourishment. Venison, or the flesh of deer, and that of hares, is of a nourishing quality, but it is liable to the inconvenience, that, though much disposed to putrescency of itself, it must be kept for a little time before it becomes tender. The blood of animals is used as an aliment by the poorer people, but they could not long subsist upon it unless mixed

with oatmeal, etc., for it is not very soluble, alone, by the digestive powers of the human stomach, and therefore cannot prove nourishing.

MILK.

Milk is of very different consistence in different animals; but that of cows being the kind used in diet, is at present the object of our attention. Milk, where it agrees with the stomach, affords excellent nourishment for those who are weak and cannot digest other aliments. It does not readily become putrid, but it is apt to become sour on the stomach, and thence to produce flatulence, heart-burn or gripes, and in some constitutions a looseness. The best milk is from a cow at three or four years of age, about two months after producing a calf. It is lighter, but more watery than the milk of sheep and goats; while, on the other hand, it is more thick and heavy than the milk of asses and mares, which are next in consistence to human milk. On account of the acid which is generated after digestion, milk coagulates in all stomachs; but the caseous or cheesy part is again dissolved by the digestive juices, and rendered fit for the purpose of nutrition. It is improper to eat acid substances with milk, as these would tend to prevent the due digestion of it. Cream is very nourishing, but, on account of its fatness, is difficult to be digested in weak stomachs. Violent exercise, after eating it, will, in a little while, convert it into butter.

BUTTER.

Some writers inveigh against the use of butter as universally pernicious; but they might with equal reason condemn all vegetable oils, which form a considerable part of diet in the southern climates, and seem to have been beneficially intended by nature for that purpose. Butter, like every other oily substance, has doubtless a relaxing quality, and if retained long in the stomach is liable to become rancid; but, if eaten in moderation, it will not produce those effects. It is, however, improper in bilious constitutions. The worst consequence produced by butter, when eaten with bread, is that it obstructs the discharge of saliva in the act of mastication or chewing, by which means the food is not so easily digested. To obviate this effect, it would be a commendable practice at breakfast, first to eat some dry bread, and chew it well, till the salivary glands were exhausted, and afterwards to eat it with butter. By these means such a quantity of saliva might be carried into the stomach as would be sufficient for the purpose of digestion. Cheese is likewise reprobated by many as extremely unwholesome. It is doubtless not easy of digestion; and when eaten in a great quantity, may overload the stomach; but if eaten sparingly, its tenacity may be dissolved by the digestive juices, and it may yield a wholesome, though not very nourishing, chyle. Toasted cheese is agreeable to most palates, but it is rendered more indigestible by that process.

GAME, ETC.

The flesh of birds differs in quality according to the food on which they live. Such as feed upon grain and berries, afford, in general, good nourishment; if we except geese and ducks, which are hard of digestion, especially the former. A young hen or chicken is a tender, delicate food, and extremely well adapted where the digestive powers are weak. But of all tame fowls, the capon is the most nutritious. Turkeys, as well as guinea or India fowls, afford a substantial nutriment, but are not so easy of digestion as the common domestic fowls. In all birds those parts are the most firm which are most exercised; in the small birds, therefore, the wings, and in the larger kinds the legs are commonly the most difficult of

digestion. The flesh of wild birds, in general, though more easily digested, is less nourishing than that of quadrupeds, as being more dry on account of their almost constant exercise. Those birds are not wholesome which subsist upon worms, insects and fishes.

EGGS.

The eggs of birds are a simple and wholesome aliment. Those of the turkey are superior in all the qualifications of food. The white of eggs is dissolved in a warm temperature, but by much heat is rendered tough and hard. The yolk contains much oil, and is highly nourishing, but has a strong tendency to putrefaction; on which account, eggs are improper for people of weak stomachs, especially when they are not quite fresh. Eggs boiled hard or fried are difficult of digestion, and are rendered still more indigestible by the addition of butter. All eggs require a sufficient quantity of salt, to promote their solution in the stomach.

FISH.

Fish, though some of them be light and easy of digestion, afford less nourishment than vegetables, or the flesh of quadrupeds, and are, of all the animal tribes, the most disposed to putrefaction. Salt water fish are, in general, the best; but when salted, though less disposed to putrescency, they become difficult of digestion. Whitings and flounders are the most easily digested. Acid sauces, and pickles, by resisting putrefaction, are a proper addition to fish, both as they retard putrescency, and correct the relaxing tendency of butter, so generally used with this kind of aliment. Oysters and cockles are eaten both raw and dressed; but in the former state they are preferable, because heat dissipates considerably their nutritious parts as well as the salt water, which promotes their digestion in the stomach; if not eaten very sparingly, they generally prove laxative. Muscles and periwinkles are far inferior to oysters, both in point of digestion and nutriment. Sea muscles are by some supposed to be of a poisonous nature; but though this opinion is not much countenanced by experience, the safest way is to eat them with vinegar, or some other vegetable acid.

BREAD.

At the head of the vegetable class stands bread, that article of diet which from general use, has received the name of the staff of life. Wheat is the grain chiefly used for the purpose in this country, and is among the most nutritive of all the farinaceous kinds, as it contains a great deal of starch. Bread is very properly eaten with animal food, to correct the disposition to putrescency; but is most expedient with such articles of diet as contain much nourishment in a small bulk, because it then serves to give the stomach a proper degree of expansion. But as it produces a slimy chyle, and disposes to costiveness, it ought not to be eaten in a large quantity. To render bread easy of digestion, it ought to be well fermented and baked, and it never should be used till it has stood twenty-four hours after being taken out of the oven, otherwise it is apt to occasion various complaints in those who have weak stomachs; such as flatulence, heartburn, watchfulness, and the like. The custom of eating butter with bread, hot from the oven, is compatible only with very strong digestive powers. Pastry, especially when hot, has all the disadvantages of hot bread and butter, and even buttered toast, though the bread be stale, is scarcely inferior in its effects on a weak stomach. Dry toast, with butter, is by far the wholesomest breakfast. Brown wheaten bread, in which there is a good deal of rye, though not so nourishing as

that made of fine flour, is both palatable and wholesome, but apt to become sour on weak stomachs.

OATS, BARLEY AND RICE.

Oats, when deprived of the husk, and particularly barley, when properly prepared, are each of them softening, and afford wholesome and cooling nourishment. Rice likewise contains a nutritious mucilage, and is less used than it deserves, both on account of its wholesomeness and economical utility. The notion of its being hurtful to the sight is a vulgar error. In some constitutions it tends to induce costiveness; but this seems to be owing chiefly to flatulence, and may be corrected by the addition of some spice, such as caraways, aniseed, and the like.

VEGETABLES.

Potatoes are an agreeable and wholesome food, and yield nearly as much nourishment as any of the roots used in diet. The farinaceous or mealy kind is in general the most easy of digestion, and they are much improved by being roasted or baked. They ought always to be eaten with meat, and never without salt. The salt should be boiled with them. Green peas and beans, boiled in their fresh state, are both agreeable to the taste and wholesome, being neither so flatulent, nor so difficult of digestion, as in their ripe state; in which they resemble the other leguminous vegetables. French beans possess much the same qualities; but yield a more watery juice, and have a greater disposition to produce flatulence. They ought to be eaten with some spice. Salads, being eaten raw, require good digestive powers, especially those of the cooling kind, and the addition of oil and vinagar, though qualified with mustard, hardly renders the free use of them consistent with a weak stomach. Spinach affords a soft lubricating aliment, but contains little nourishment. In weak stomachs it is apt to produce acidity, and frequently a looseness. To obviate these effects, it ought always to be well beaten, and but little butter mixed with it. Asparagus is a nourishing article in diet, and promotes the secretion of urine; but in common with the vegetable class, disposes a little to flatulence. Artichokes resemble asparagus in their qualities, but seem to be more nutritive, and less diuretic. Cabbages are some of the most conspicuous plants in the garden. They do not afford much nourishment, but are an agreeable addition to animal food, and not quiet so flatulent as the common greens. They are likewise diuretic, and somewhat laxative. Cabbage has a stronger tendency to putrefaction than most other vegetable substances; and, during its putrefying state, sends forth an offensive smell, much resembling that of putrefying animal bodies. So far, however, from promoting a putred disposition in the human body, it is, on the contrary, a wholesome aliment in the true putrid scurvy. Turnips are a nutritious article of vegetable food, but not very easy of digestion, and are flatulent. This effect is in a good measure obviated by pressing the water out of them before they are eaten. Carrots contain a similar quantity of nutritious juice, but are among the most flatulent of vegetable productions. Parsnips are more nourishing and lesss flatulent than carrots, which they also exceed in the sweetness of their mucilage. By boiling them in two different waters, they are rendered less flatulent, but their other qualities are thereby diminished in proportion. Parsley is of a stimulating and aromatic nature, well calculated to make agreeable sauces. It is also a gentle diuretic, but preferable in all its qualities when boiled. Celery affords a root both wholesome and fragrant, but is difficult of digestion in its raw state. It gives an agreeable taste to soups, as well as renders them

diuretic. Onions, garlic and shallots are all of a stimulating nature, by which they assist digestion, dissolve slimy humors, and expel flatulency. They are, however, most suitable to persons of a cold and phlegmatic constitution. Radishes of all kinds, particularly the horse radish, agree with the three preceding articles in powerfully dissolving slimy humors. They excite the discharge of air lodged in the intestines.

FRUIT.

Apples are a wholesome vegetable aliment and in many cases medicinal, particularly in diseases of the breast and complaints arising from phlegm. But, in general, they agree best with the stomach when eaten either roasted or boiled. The more aromatic kinds of apples are the fittest for eating raw. Pears resemble much in their effects the sweet kinds of apples, but have more of a laxative quality, and a greater tendency to flatulence. Cherries are in general a wholesome fruit, when they agree with the stomach, and they are beneficial in many diseases, especially those of the putrid kind. Plums are nourishing and have besides an attenuating as well as a laxative quality, but are apt to produce flatulence. If eaten fresh, and before they are ripe, especially in large quantities, they occasion colics, and other complaints of the bowels. Peaches are not of a very nourishing quality, but they abound in juice, and are serviceable in bilious complaints. Apricots are more pulpy than peaches, but are apt to ferment, and produce acidities in weak stomachs. Where they do not disagree they are cooling, and tend likewise to correct a disposition to putrescency. Gooseberries and currants, when ripe, are similar in their qualities to cherries, and when used in a green state, they are agreeably cooling. Strawberries are an agreeable, cooling aliment, and are accounted good in cases of gravel. Cucumbers are cooling and agreeable to the palate in hot weather; but to prevent them from proving hurtful to the stomach, the juice ought to be squeezed out after they are sliced, and vinegar, pepper, and salt afterward added.

TEA, COFFEE, ETC.

Tea by some is condemned in terms the most vehement and unqualified, while others have either asserted its innocence, or gone so far as to ascribe to it salubrious, and even extraordinary virtues. The truth seems to lie between those two extremes; there is, however, an essential difference in the effects of green tea and of black, or of bohea; the former of which is much more apt to affect the nerves of the stomach than the latter, more especially when drank without cream, and likewise without bread and butter. That, taken in a large quantity, or at a later hour than usual, tea often produces watchfulness, is a point that cannot be denied; but if used in moderation, and accompanied with the additions just now mentioned, it does not sensibly discover any hurtful effects, but greatly relieves an oppression of the stomach, and abates a pain of the head. It ought always to be made of a moderate degree of strength: for if too weak it certainly relaxes the stomach. As it has an astringent taste, which seems not very consistent with a relaxing power, there is ground for ascribing this effect not so much to the herb itself as to the hot water, which not being impregnated with a sufficient quantity of tea, to correct its own emollient tendency, produces a relaxation, unjustly imputed to some noxious quality of the plant. But tea, like every other commodity, is liable to damage, and when this happens, it may produce effects not necessarily connected with its original qualities. It is allowed that coffee promotes digestion, and exhilarates the animal spirits; besides which, various other qualities are ascribed to it, such as dispelling flatulency,

removing dizziness of the head, attenuating viscid humors, increasing the circulation of the blood, and consequently perspiration; but if drank too strong, it affects the nerves, occasions watchfulness, and tremor of the hands; though in some phlegmatic constitutions it is apt to produce sleep. Turkey coffee is greatly preferable in flavor to that of the West Indies. Drank, only in the quantity of one dish, after dinner, to promote digestion, it answers best without either sugar or milk; but if taken at other times, it should have both; or in place of the latter, rather cream, which not only improves the beverage, but tends to mitigate the effect of coffee upon the nerves. Chocolate is a nutritive and wholesome composition, if taken in a small quantity and not repeated too often; but is generally hurtful to the stomach of those with whom a vegetable diet disagrees. By the addition of vanilla and other ingredients, it is made too heating, and so much affects particular constitutions as to excite nervous systems, especially complaints of the head.

THE VITAL FLUID.

The plasma of the blood is replenished in its nutritive constituents by the food taken at frequent intervals. Water is necessary to render the blood sufficiently fluid, and to hold the other constituents in solution. The presence of certain chemical substances is also essential. Lime, iron, and certain other minerals, must also find a place. Besides these conditions, certain constituents manufactured in the body itself, as liver sugar and the corpuscles in normal quantity, are necessary to health. Water is more essential than food, and oxygen more than water. One deprived of food dies from impoverishment of the blood: if deprived of water death takes place much sooner, but if deprived of oxygen, death ensues within five to eight minutes. About a ton and a half in the shape of food and drink is added to the blood of an ordinary man during the year. As there is the same amount of waste, a ton and a half of material, therefore, must be carried out of the body through the blood during the same time. Some of the products of oxidation, as *urea* and *carbonic acid gas*, are very poisonous to the nervous system. Certain organs, as the kidneys, skin and lungs, are designed especially to remove these poisons from the current of the blood, and carry them out of the body. If, through disease of these organs, they fail to perform their functions, the blood becomes highly charged with the poison, and, unless speedily relieved, death is the result. If the lungs fail to eliminate the carbonic acid, death results within a few minutes. If the kidneys fail to remove the urea, death must follow in a short time. The same is true if the skin fails in its office.

From the above it may readily be seen that the disorders of the blood are many. There may be too much blood, when the condition is called *plethora;* or too little, when it is called *anæmia;* or it may contain too much water, or too little; or too many red corpuscles or too few; or the plasma may be deficient in tissue-building constituents; or the blood may be poisoned by the retention of carbonic acid and urea.

Treatment.—A considerable quantity and wide variety of food should be taken regularly. A sufficient amount of water and fluids should also be taken. Frequent baths and a reasonable amount of exercise are advised. The sleeping-room should be well ventilated, and plenty of fresh air supplied. Where the blood disease is due to disease of some particular organ, the latter requires primary attention.

HEARTH AND HOME.

Far reaching as the earth's remotest span,
Widespread as ocean foam,
One thought is sacred in the breast of man,
It is the thought of home;
That little word his human fate shall bind
With destines above,
For there the home of his immortal soul
Is in God's wider love.

—ANONYMOUS.

CRYSTALS THAT FORM GENTLEMEN.

Never betray a confidence.

Do not give a present in hopes of a return.

Do not fail to return a friend's call in due time.

A compliment that is palpably insincere is no compliment at all.

Avoid awkwardness of attitude as well as awkwardness of speech.

Never question a child or a servant about the private affairs of others.

Gentlemen precede a lady in going up stairs, but follow her in going down.

The man or woman who engrosses the conversation is unpardonably selfish.

All irritability and gloom must be thrown off when we enter society.

Never fail to extend every kindly courtesy to an elderly person or an invalid.

When offered a seat in the street car, accept the same with audible thanks.

Never look at the superscription on a letter that you may be requested to mail.

Do not be quick to answer questions, in general company, that are put to others.

In walking with a lady through a crowd, precede her, in order to clear the way.

Never indicate an object by pointing at it. Move the head or wave the whole hand.

In walking on a public promenade, if you meet the same friends and acquaintances a number of times, it is only necessary to salute them once in passing.

When entrusted with a commission, do not fail to perform it. It is rude to "forget."

Avoid all exhibition of excitement, anger or impatience when an accident happens.

On entering a room filled with people, do not fail to bow slightly to the general company.

It is rude to examine the cards in a card-basket unless you have an invitation to that effect.

Do not borrow money and neglect to pay. If you do, you will soon find that your credit is bad.

Avoid any familiarity with a new acquaintance. You never know when you may give offence.

If you accept favors and hospitalities, do not fail to return the same when the opportunity offers.

In conversation the face must be pleasant, wearing something that almost approaches to a smile.

Never allude to a present which you have given; do not even appear to see it if you are where it is.

Never fail to answer an invitation, either personally or by letter, within a week after its receipt.

No man or woman is well bred who is continually lolling, gesticulating or fidgeting in company.

When writing to ask a favor or to obtain information, do not fail to enclose postage stamp for reply.

If you cannot avoid passing between two persons who are talking, never fail to apologize for doing so.

You should not lend an article that you have borrowed without first obtaining permission from the owner.

Never play practical jokes. The results are frequently so serious as to entail life-long regret on the joker.

Never ridicule the lame, the halt or the blind. You never know when misfortune may be your own lot.

Do not appear to notice any defect, scar or peculiarity of any one. It is the height of rudeness to speak of them.

Remember, when you are prone to give in charity to the sick or the needy, that "he who gives quickly gives double."

Never speak of absent persons by their Christian names or their surnames; always refer to them as Mr. — or Mrs. — .

Always tell the truth. Veracity is the very foundation of character. Without it a man is a useless and unstable structure.

Gentlemen, when with ladies, are expected to defray all such expenses as car fares, entrance fee to theater, refreshments, etc.

It is very awkward for one lady to rise and give another lady a seat in a street car, unless the lady standing be very old, or evidently ill and weak.

When an apology is offered, accept it, and do so with a good grace, not in a manner that implies you do not intend changing your opinion of the offence.

In conversing with a person, do not repeat the name frequently, as it implies one of two extremes, that of familiarity or haughtiness.

A good bit of advice is the saying, "Think twice before you speak once," as thus only can you learn to always speak to the point.

Never enter a room noisily. Never enter the private bed-room of a friend without knocking. Never fail to close the door after you, and do not slam it.

Never seal a letter that is to be given to a friend for delivery. It looks as though you doubted his or her honor in refraining from examining the contents.

Never correct any slight inaccuracy in statement or fact. It is better to let it pass than to subject another to the mortification of being corrected in company.

Always adopt a pleasant mode of address. Whether you are speaking to inferiors or to your equals, it will alike give them a kindly and happy impression of you.

Do not quickly follow up a present by a return. It looks too much like payment. Never, however, fail to make an immediate acknowledgment of the receipt of a gift.

Never presume to attract the attention of an acquaintance by a touch, unless you are extremely intimate. Recognition by a simple nod or spoken word is all that can be allowed.

The most contemptible meanness in the world is that of opening a private letter addressed to another. No one with the slightest self-respect would be guilty of such an act.

Long hair and a scrawling signature do not constitute a genius. Be careful, then, how you draw upon yourself the ridicule of being a shallow pretender by adopting either or both.

Sneezing, coughing and clearing the throat must be done quietly when it cannot possibly be avoided; but sniffing and expectorating must never be indulged in in decent society.

Do not make promises that you have no intention of fulfilling. A person who is ever ready with promises, which he fails to execute, is soon known as a very unreliable party.

It is extremely rude to look over the shoulder of one who is reading or writing. It is also rude to persist in reading aloud passages from your own book or paper to one who is also reading.

If you are talking to a person of title, do not keep repeating the title. You can express all the deference you desire in voice and manner; it is unnecessary and snobbish to put it in words.

Temper has much more to do with good breeding than is generally supposed. The French are allowed to be the most polite people in the world, when they are really only the most amiable.

People must remember that they must give as well as take in this life, and that they must not hesitate to go to a little trouble in those small observances which it is so pleasant to accept.

Neither a gentleman nor a lady will boast of the conquests he or she has made. Such a course would have the effect of exciting the most profound contempt for the boasters in the breasts of all who heard them.

Punctuality is a most admirable quality. The man or woman who possesses it is a blessing to his or her friends. The one who lacks it is wanting in one of the first requisites of good-breeding.

The young of both sexes would find it an inestimable advantage through life to cultivate from the outset a clear intonation, a well-chosen phraseology, a logical habit of thought, and a correct accent.

A rich person should be careful how he gives to the poor, lest he hurt their pride, while a poor person can only give to those of greater wealth something that has cost only affection, time or talent.

We should not neglect very young people in our homes. If we wish our children to have polished manners, and to express themselves well, we must lead them to enter into the conversation that is going on.

When walking with a lady, it is etiquette to give her the wall, but if she have your arm it is quite unnecessary to be changing at every corner you come to. After one or two changes the habit becomes ridiculous.

The art of giving and receiving presents is not always an intuition. A generous person may unwittingly wound where he intends to please, while a really grateful person may, by want of tact, appear to deprecate the liberality of his friends.

If a person of greater age than yourself desire you to step into a carriage or through a door first, it is more polite to bow and obey than to decline. Compliance with, and deference to the wishes of others, is always the finest breeding.

If you present a book to a friend, do not write the name in it unless it be requested. By doing so you are taking for granted that your present will be accepted, and also that a specimen of your penmanship will give additional value to the gift.

Learn to make small sacrifices with a good grace; to accept small disappointments in a patient spirit. A little more of self-control, a little more allowance for the weaknesses of others, will oftentimes change the entire spirit of a household.

A well-educated person proclaims himself by his simple and terse language. Good and clear Saxon is much to be preferred to high-sounding phrases and long words; it is only the half-educated who imagine such a style is elegant.

In entering an exhibition or public room where ladies are present, gentlemen should always lift their hats. In France a gentleman lifts his hat on entering a public omnibus, but that is not necessary according to the American code of etiquette.

Married people are sometimes guilty of the vulgar habit of speaking of each other by the initial letter of their first name, or the wife of her husband as "Jones," omitting the "Mr." This denotes very ill breeding, and should be strenuously avoided.

We are not to be polite merely because we wish to please, but because we wish to consider the feelings and spare the time of others—because we wish to carry into daily practice the spirit of the precept, "Do unto others as you would have others do unto you."

To yawn in the presence of others, to put your feet on a chair, to stand with your back to the fire, to take the most comfortable seat in the room, to do anything in fact that displays selfishness and a lack of respect for those about you, is unequivocally vulgar and ill-bred.

Never employ "extravagance in conversation." Always employ the word that will express your precise meaning and no more. It is absurd to say it is "immensely jolly," or "disgustingly mean." Such expressions show neither wit nor wisdom, but merest flippancy.

It is a duty to always look pleased. It is likewise a duty to appear interested in a story that you may have heard a dozen times before, to smile on the most inveterate proser; in short, to make such minor sacrifices of sincerity as one's good manners and good feelings may dictate.

It is in bad taste to undervalue a gift which you have yourself offered. If it is valueless, it is not good enough to give to your friend; and if you say you do not want it yourself, or that you would only throw it away if they did not take it, you are insulting the person whom you mean to benefit.

When in general conversation you cannot agree with the proposition advanced, it is best to observe silence, unless particularly asked for your opinion, in which case you will give it modestly, but decidedly. Never be betrayed into too much warmth in argument; if others remain unconvinced, drop the subject.

Never indulge in egotism in the drawing-room. The person who makes his family, his wealth, his affairs or his hobby the topic of conversation is not only a bore but a violator of good taste. We do not meet in society to display ourselves, but to give and take as much rational entertainment as our own accomplishments and those of others will afford.

A gift should always be valuable for something besides its price. It may have been brought by the giver from some famous place; it may have a valuable association with genius, or it may be unique in its workmanship. An author may offer his book or an artist his sketch, and any one may offer flowers, which are always a delicate and unexceptional gift.

Boasting is one of the most ill-bred habits a person can indulge in. Travelling is so universal a custom now that to mention the fact that you have been to Europe is to state nothing exceptional. Anybody with wealth, health and leisure can travel; but it is only those of real intelligence that derive any benefit from the art treasures of the Old World.

Never refuse a gift unless you have a very good reason for so doing. However poor the gift, you should show your appreciation of the kindness of heart which prompted it. All such deprecatory phrases as "I fear I rob you," or "I am really ashamed to take it," etc., are in bad taste, as they seem to imply that you think the giver cannot afford it.

Always look at the person who is conversing with you, and listen respectfully. In answering try to express your thoughts in the best manner. A loose manner of expression injures ourselves much more than our hearers, since it is a habit which, once acquired, is not easily thrown off, and when we wish to express ourselves well it is not easy to do so.

A good memory for names and faces, and a self-possessed manner, are necessary to every one who would make a good impression in society. Nothing is more delicately flattering to another than to find you can readily call his or her name, after a very slight acquaintance. The most popular of great men have gained their popularity principally through the possession of this faculty.

No lady of good breeding will sit sideways on her chair, or with her feet crossed or stretched apart, or hold her chin in her hands, or twirl her watch chain, while she is talking; nor does a well-bred gentleman sit astride of his chair, or bite his nails, or nurse his leg. A man is always allowed more freedom than a woman, but both should be graceful and decorous in their deportment.

Shyness is very ungraceful, and a positive injury to any one afflicted with it. It is only allowable in very young people. A person who blushes, stammers and fidgets in the presence of strangers will not create a very good impression upon their minds as to his personal worth and educational advantages. Shyness may be overcome by determined mixing in society. Nothing else will have an effect upon it.

A foreigner should always be addressed by his full name; as Monsieur de Montmorenci, never as Monsieur only. In speaking of him, give him his title, if he have one. For example, in speaking to a nobleman you would say, Monsieur le Marquis; in speaking of him in his absence, you would say, Monsieur le Marquis de Montmorenci. Converse with a foreigner in his own language. If you are not sufficiently at home in the language to do so, apologize to him, and beg permission to speak English.

No one can be polite who does not cultivate a "good memory." There is a class of absent-minded people who are to be dreaded on account of the mischief they are sure to create with their unlucky tongues. They always recall unlucky topics, speak of the dead as though they were living, talk of people in their hearing, and do a hundred and one things which, in slang parlance, is "treading on somebody's toes." Carelessness can be carried to such a pitch as to almost amount to a crime. Cultivate a good memory, therefore, if you wish to say pleasant things and to avoid disagreeable ones.

USES OF AMMONIA.

All housekeepers should keep a bottle of liquid ammonia, as it is the most powerful and useful agent for cleaning silks, stuffs and hats, in fact, cleans everything it touches. A few drops of ammonia in water will take off grease from dishes, pans, etc , does not injure the hands as much as the use of soda and strong chemical soaps. A spoonful in a quart of warm water for cleaning paint, makes it look like new, and so with everything that needs cleaning.

Spots on towels and hosiery will disappear with little trouble if a little ammonia is put into enough water to soak the articles, and they are left in it an hour or two before washing; and if a cupful is put into the water in which clothes are soaked the night before washing, the ease with which the articles can be washed, and their great whiteness and clearness when dried, will be very gratifying. Remembering the small sum paid for three quarts ammonia of common strength, one can easily see that no bleaching preparation can be more cheaply obtained.

No articles in kitchen use are so likely to be neglected and abused as the dish-cloths and dish-towels; and in washing these, ammonia, if properly used, is a greater comfort than anywhere else. Put a teaspoonful into the water in which these clothes are, or should be washed every day; rub soap on the towels. Put them in the water, let them stand half an hour or so; then rub them out thoroughly, rinse faithfully, and dry

out-doors in clear air and sun, and dish-cloths and towels need never look grey and dingy—a perpetual discomfort to all housekeepers.

A dark carpet often looks dusty soon after it has been swept, and you know it does not need sweeping again; so wet a cloth or a sponge, wring it almost dry, and wipe off the dust. A few drops of ammonia in the water will brighten the colors.

For cleaning hair-brushes it is excellent; put a tablespoonful into the water, having it only tepid, and dip up and down until clean; then dry with the brushes down, and they will be like new ones.

When employed in washing anything that is not especially soiled, use the waste water afterward for the house plants that are taken down from their usual position and immersed in the tub of water. Ammonia is a fertilizer, and helps to keep healthy the plants it nourishes. In every way, in fact, ammonia is the housekeeper's friend.

Ammonia is not only useful for cleaning, but as a household medicine Half a teaspoonful taken in half a tumbler of water is far better for faintness than alcoholic stimulants. In the Temperance Hospital, in London, it is used with the best results. It was used freely by Lieutenant Greely's Arctic party for keeping up circulation. It is a relief in nervousness, headache, and heart disturbances.

MANAGEMENT OF STOVES.

If the fire in a stove has plenty of fresh coals on top not yet burned through it will need only a little shaking to start it up; but if the fire looks dying and the coals look white, don't shake it. When it has drawn till it is red again, if there is much ash and little fire, put coals on very carefully, A mere handful of fire can be coaxed back to life by adding another handful or so of new coals on the red spot, and giving plenty of draught, but don't shake a dying fire, or you lose it. This management is often necessary after a warm spell, when the stove has been kept dormant for days, though I hope you will not be so unfortunate as to have a fire to coax up on a cold winter morning. They should be arranged over night, so that all that is required is to open the draughts in order to have a cheery glow in a few minutes.

TO DESTROY INSECTS AND VERMIN.

Dissolve two pounds of alum in three or four quarts of water. Let it remain over night, till all the alum is dissolved. Then, with a brush, apply, boiling hot, to every joint or crevice in the closet or shelves where croton bugs, ants, cockroaches, etc., intrude; also to the joints and crevices of bedsteads, as bed bugs dislike it as much as croton bugs, roaches or ants. Brush all the cracks in the floor and mopboards. Keep it boiling hot while using.

To keep woolens and furs from moths, be sure that none are in the articles when they are put away; then take a piece of strong brown paper, with not a hole through which even a pin can enter. Put the article in it, with several lumps of gum camphor between the folds. Place this in a close box or trunk. Cover every joint with paper. A piece of cotton cloth, if thick and firm, will answer. Wherever a knitting-needle can pass, the parent moth can enter.

Place pieces of camphor, cedar-wood, Russia leather, tobacco leaves, whole cloves, or anything strongly aromatic, in the drawers or boxes where furs and other things to be preserved from moths are kept, and

they will never be harmed. Mice never get into drawers or trunks where gum camphor is placed.

Another Recipe. Mix half a pint of alcohol, the same quantity of turpentine, and two ounces of camphor. Keep in a stone bottle, and shake well before using. The clothes or furs are to be wrapped in linen, and crumbled-up pieces of blotting paper dipped in the liquid to be placed in the box with them, so that it smells strong. This requires renewing but once a year.

TO REMOVE INK FROM CARPETS.

When freshly spilled, ink can be removed from carpets by wetting in milk. Take cotton batting and soak up all of the ink that it will receive, being careful not to let it spread. Then take fresh cotton, wet in milk, and sop it up carefully. Repeat this operation, changing cotton and milk each time. After most of the ink has been taken up in this way, with fresh cotton and clean, rub the spot. Continue till all disappears; then wash the spot in clean warm water and a little soap; rinse in clear water and rub till nearly dry. If the ink is dried in, we know of no way that will not take the color from the carpet as well as the ink, unless the ink is on a white spot. In that case, salts of lemon, or soft soap, starch and lemon juice will remove the ink as easily as if on cotton.

INCOMBUSTIBLE DRESSES.

By putting an ounce of alum or sal amoniac in the *last* water in which muslin or cottons are rinsed, or a similar quantity in the starch in which they are stiffened, they will be rendered almost uninflammable; or, at least, will with difficulty take the fire, and if they do, will burn without flame. It is astonishing that this simple precaution is so rarely adopted. Remember this and save the lives of your children.

HOW TO FRESHEN UP FURS.

Furs when taken out in the fall are often found to have a mussed, crushed-out appearance. They can be made to look like new, by following these simple directions. Wet the fur with a hair-brush, brushing up the wrong way of the fur. Leave it to dry in the air for about half an hour, and then give it a good beating on the right side with a rattan. After beating it, comb it with a coarse comb, combing up the right way of the fur.

TO WASH FEATHERS.

Wash in warm soap-suds and rinse in water a very little blued; if the feather is white, then let the wind dry it. When the curl has come out by washing the feather or getting it damp, place a hot flat-iron so that you can hold the feather just above it while curling. Take a bone or silver knife, and draw the fibres of the feather between the thumb and the dull edge of the knife, taking not more than three fibers at a time, beginning at the point of the feather and curling one-half the other way. The hot iron makes the curl more durable. After a little practice one can make them look as well as new feathers. Or they can be curled by holding them over the stove or range, not near enough to burn; withdraw and shake out; then hold them over again, until they curl. When swansdown becomes soiled, it can be washed and look as

well as new. Tack strips on a piece of muslin and wash in warm water with white soap, then rinse and hang in the wind to dry. Rip from the muslin, and rub carefully between the fingers to soften the leather.

THE ART OF CONVERSATION.

The art of expressing one's thoughts in clear, simple, elegant English is one of the first to be attained by those who would mix in good society. You must talk, and talk fairly well, if you would not altogether fail of producing some kind of impression upon society. To have something good to say, and to say it in the best possible manner, is to ensure success and admiration. The first thing necessary for the attainment of this valuable accomplishment is a good education. An acquaintance with the current literature of the day is absolutely essential to a good talker. A perfect familiarity with the English language, its grammer, pronunciation, etc., is indispensable. Those who have to contend with a lack of early advantages in this respect can supply the deficiency by private study, and close observance wherever good English is spoken. Above all should they avoid associating with those who express themselves incorrectly and vulgarly.

Nothing is so infectious as a bad accent or incorrect form of speech.

All affectations of foreign accent, mannerisms, exaggerations and slang are detestable.

Equally to be avoided are inaccuracies of expression, hesitation, and undue use of French, or other foreign words, and anything approaching to flippancy, coarseness, triviality or prevarication.

The voice should never be loud, no gesticulation should accompany the speech, and the features should be under strict control. Nothing is more ill-bred than a half-opened mouth, a vacant stare, a wandering eye or a smile ready to break into a laugh at any moment. Absolute suppression of emotion, whether of anger, laughter, mortification or disappointment, is one of the most certain marks of good-breeding.

Next to unexceptionable grammar, correct elocution and a frank, easy bearing, it is necessary to be genial. If you cannot be animated, sympathetic and cheerful, do not go into society. Dull and stupid people are but so many clogs to the machinery of social life.

The *matter* of conversation is as important as the *manner*. Tact and good feeling will, in people of sound sense, indicate the shoals and quicksands to be avoided in conversation, but for safety's sake it will be best to enumerate a few of them:

Complimentary speeches should be avoided, unless, indeed, so delicately put as to be scarcely discernible. Flattery is suggestive of snobbery, particularly if it be paid to people of great wealth and high position. It induces disgust on the part of the receiver, and insincerity on that of the giver.

The habit of "fishing" for compliments is notably vulgar, and it is one in which a certain class of vain young people are very apt to indulge, especially among themselves in private. It indicates vanity in the angler and begets contempt on the part of the one who from interested motives nibbles gently at the bait.

All "slang" is vulgar. This fact cannot be too forcibly impressed upon the minds of the young people of this day, as the alarming prevalence of slangy conversational phrases is enough to cause our decorous forefathers and mothers to rise in their graves.

Many of the daughters of our most wealthy and influential citizens have an idea that their position will excuse or gloss the vulgarity of a "cant" phrase now and then. Nothing was ever more erroneous. No position, however high, can excuse the vulgarity of this practice, and it is a grand mistake also to imagine slang to be a substitute for wit. We refer particularly to this habit among young ladies, as it is more reprehensible in them than in the opposite sex, although it indicates bad breeding on their part as well.

Scandal should be avoided above all things. It is a sin against morality as well as good taste.

Punning is a most objectionable habit in society. An inveterate punster is an intolerable bore, and unless a pun amounts to a positive witticism it should never be propounded in company.

Long arguments should be avoided in general company. They become tiresome to the hearers. Always endeavor to change the subject after it has continued a reasonable length of time.

Religion and politics are two subjects to be avoided in general conversation. People usually have strong prejudices on both these points, and it is a rule of good breeding to respect the prejudices of those about you.

Never interrupt the speech of another. This is an unpardonable sin against good breeding.

A good listener is more to be desired than a good conversalionalist. In order to be a good listener you must appear to be interested, answer appropriately, briefly and to the point, and give your companion generally the impression that you are in perfect sympathy with, and highly entertained by what he is saying.

Avoid pedantic displays of learning.

All topics specially interesting to gentlemen, such as the farm and business matters generally, should be excluded in general society.

The expression of immature opinions is always in bad taste. Persons, young or old, should not attempt to criticise books or art unless positively certain that their knowledge of the subject is sufficient to justify the criticism.

Be very careful of introducing long-winded anecdote into the conversation. Nothing is more awkward than to find an array of bored faces when one is not more than half through a long story.

Repartee should be indulged in only moderately. Otherwise it may degenerate into flippancy, a habit much to be condemned in a certain class of young persons who think themselves unusually clever, or as our American word goes, "smart."

In using titles, such as "General," "Doctor," etc., you must always append the surname if you are a stranger or any other than a most intimate friend. For example, you should say, "What did you observe, Doctor Gray?" not, "What did you observe, Doctor?" Names should be used as little as possible, and never familiarly. Few solecisms give greater offense than a liberty taken with a name.

In addressing a person of title in England, "My Lord" and "My Lady" are seldom used except by servants. The Prince of Wales may be addressed as "Sir," and the Queen as "Madame." A Frenchman, however, whatever his rank, is addressed as "Monsieur," and a Frenchwoman, whether duchess or dressmaker, as "Madame." It would be as ill-bred to omit to say Monsieur, Mein Herr, and Signor, in France, Germany and Italy, respectively, as it would to say, Sir, Ma'am and Miss, as the servants do in this country.

The great secret of talking well is to adapt your conversation to your company as skilfully as may be.

People take more interest in their own affairs than in anything else which you can name. A wise host or hostess will then lead a mother to talk of her children, an author of his book, an artist of his picture, etc. Having furnished the topic, you have but to listen, and acquire a reputation for being amiable, agreeable, intelligent and well-bred.

If you would not be unpopular, do not always be witty, no matter what your natural abilities may be in that line. People do not like to be always outshone.

Do not too officiously supply a word or phrase if a speaker hesitate for a moment; he will think of the one he wants or supply another in good time.

Never correct a fault in pronunciation or in facts, in company or in private, if you wish to retain a friend.

Avoid such colloquialisms as "says I," "you know," and other senseless repetitions that might be mentioned. Never speak of a person as "a party," nor refer to absent persons as "he" or "she." Give the name of the lady or gentleman referred to.

In telling a joke, do not laugh yourself before the point is reached. If the joke be original, do not laugh at all.

In *tête-à-tête* conversation it is ill-bred to drop the voice to a whisper.

Egotism is always in bad taste. Allow others the privilege of proclaiming your merits.

Never speak of personal or private matters in general company.

Avoid as much as possible beginning a conversation with stale commonplaces, such as, "It is a fine day," "The weather is charming," etc.

Do not speak slightingly of the city or neighborhood in which you may be visiting. By offending the prejudices of those about you, you render yourself extremely disagreeable.

Avoid all excitability and dogmatism in conversation. Nothing is more annoying than to converse with an arrogant, loud-speaking person.

Always yield the point in conversation if you find the argument is likely to become violent.

Avoid lavishing praise on the members of your own family. It is almost as bad as praising yourself.

It is exceedingly bad taste to parade the fact that you have travelled in foreign countries, or that you are acquainted with distinguished or wealthy people, that you have been to college or that your family is distinguished for gentility and blue blood.

In speaking of husband or wife, do not use the surname alone. To say "I was telling Brown," is extremely vulgar. Always prefix the Mr.

Always endeavor to contribute your quota to the general conversation. It is as much your duty to entertain as to be entertained. Bashfulness is as much to be avoided as too much assurance.

Never ask questions of a personal nature, such as what a certain article cost, or why so-and-so did not go to the opera. They are decidedly impertinent.

Look at the person with whom you are conversing, but do not stare.

Avoid loud laughter in society.

If you carry on the thread of a conversation after the entrance of a visitor, you should always recapitulate what has been said before his or her arrival.

Remember that "an excellent thing in woman is a voice low but sweet," and cultivate a distinct but subdued tone.

Emerson says: "You cannot have one well-bred man without a whole society of such." Elsewhere he says: "It makes no difference, in looking back five years, how we have dieted or dressed; but it counts much whether we have had good companions in that time—almost as much as what we have been doing."

THE HOUSEHOLD AND TOILET.

TOOTHACHE CURE.—Compound tincture benzoin is said to be one of the most certain and speedy cures for toothache; pour a few drops on cotton, and press at once into the diseased cavity, when the pain will almost instantly cease.

TOOTHACHE TINCTURE.—Mix tannin, 1 scruple; mastic, 3 grains; ether, 2 drams. Apply on cotton wool, to the tooth, previously dried.

CHARCOAL TOOTH PASTE.—Chlorate of potash, ½ dram; mint water, 1 ounce. Dissolve and add powdered charcoal, 2 ounces; honey, 1 ounce.

EXCELLENT MOUTH WASH.—Powdered white Castile soap, 2 drams; alcohol, 3 ounces; honey, 1 ounce; essence or extract jasmine, 2 drams. Dissolve the soap in alcohol and add honey and extract.

REMOVING TARTAR FROM THE TEETH.—This preparation is used by dentists. Pure muriatic acid, 1 ounce; water, 1 ounce; honey, 2 ounces; mix thoroughly. Take a toothbrush, and wet it freely with this preparation, and briskly rub the black teeth, and in a moment's time they will be perfectly white; then immediataly wash out the mouth well with water, that the acid may not act on the enamel of the teeth. This should be done only occasionally.

BAD BREATH.—Bad breath from catarrh, foul stomach or bad teeth, may be temporarily relieved by diluting a little bromo chloralum with eight or ten parts of water, and using it as a gargle, and swallowing a few drops before going out. A pint of bromo chloralum costs fifty cents, but a small vial will last a long time.

GOOD TOOTH POWDER.—Procure, at a druggist's, half an ounce of powdered orris root, half an ounce of prepared chalk finely pulverized, and two or three small lumps of Dutch pink. Let them all be mixed in a mortar, and pounded together. The Dutch pink is to impart a pale reddish color. Keep it in a close box.

ANOTHER TOOTH POWDER.—Mix together, in a mortar, half an ounce of red Peruvian bark, finely powdered; a quarter of an ounce of powdered myrrh; and a quarter of an ounce of prepared chalk.

A SAFE DEPILATORY.—Take a strong solution of sulphuret of barium, and add enough finely powdered starch to make a paste. Apply to the roots of the hair, and allow it to remain on a few minutes, then scrape off with the back edge of a knife blade, and rub with sweet oil.

QUICK DEPILATORY FOR REMOVING HAIR.—Best slack lime, 6 ounces; orpiment, fine powder, 1 ounce. Mix with a covered sieve and preserve in a dry place in closely stoppered bottles. In using mix the powder with enough water to form a paste, and apply to the hair to be removed. In about five minutes, or as soon as its caustic action is felt on the skin, remove, as in shaving, with an ivory or bone paper knife, wash with cold water freely, and apply cold cream.

TRICOPHEROUS FOR THE HAIR.—Castor oil, alcohol, each 1 pint; tincture cantharides, 1 ounce; oil bergamot, ½ ounce; alkanet coloring,

to color as wished. Mix and let it stand forty-eight hours, with occasional shaking, and then filter.

LIQUID SHAMPOO.—Take bay rum, 2½ pints; water, ½ pint; glycerine, 1 ounce; tincture cantharides, 2 drams; carbonate of ammonia, 2 drams; borax, ½ ounce; or take of New England rum, 1½ pints; bay rum, 1 pint; water, ½ pint; glycerine, 1 ounce; tincture cantharides, 2 drams; ammon. carbonate, 2 drams; borax, ½ ounce; the salts to be dissolved in water, and the other ingredients to be added gradually.

CLEANING HAIR BRUSHES.—Put teaspoonful or dessertspoonful of aqua ammonia into a basin half full of water, comb the loose hairs out of the brush, then agitate the water briskly with the brush, and rinse it well with clear water.

HAIR INVIGORATOR.—Bay rum, 2 pints; alcohol, 1 pint; castor oil, 1 ounce; carbonate ammonia, half an ounce; tincture of cantharides, 1 ounce. Mix them well. This compound will promote the growth of the hair and prevent it from falling out.

FOR DANDRUFF.—Take glycerine, 4 ounces; tincture of cantharides, 5 ounces; bay rum, 4 ounces; water, 2 ounces. Mix, and apply once a day, and rub well down the scalp.

RAZOR-STROP PASTE.—Wet the strop with a little sweet oil, and apply a little flour of emery evenly over the surface.

SHAVING COMPOUND.—Half a pound of plain white soap, dissolved in a small quantity of alcohol, as little as can be used; add a tablespoonful of pulverized borax. Shave the soap and put it in a small tin basin or cup; place it on the fire in a dish of boiling water; when melted, add the alcohol, and remove from the fire; stir in oil of bergamot sufficient to perfume it.

CURE FOR PRICKLY HEAT.—Mix a large portion of wheat bran with either cold or lukewarm water, and use it as a bath twice or thrice a day. Children who are covered with prickly heat in warm weather will be thus effectually relieved from that tormenting eruption. As soon as it begins to appear on the neck, face, or arms, commence using the bran water on these parts repeatedly through the day, and it may probably spread no farther. If it does, the bran water bath will certainly cure it, if persisted in

TO REMOVE CORNS FROM BETWEEN THE TOES.—These corns are generally more painful than any others, and are frequently so situated as to be almost inaccessible to usual remedies Wetting them several times a day with hartshorn will in most cases cure them. Try it.

SUPERIOR COLOGNE WATER.—Oil of lavender, 2 drams; oil of rosemary, 1 dram and a half; orange, lemon and bergamot, 1 dram each of the oil; also 2 drams of the essence of musk, attar of rose 10 drops, and a pint of proof spirit. Shake all together thoroughly three times a day for a week.

INEXHAUSTIBLE SMELLING SALTS. — Sal tartar, 3 drams; muriate ammonia, granulated, 6 drams; oil neroli, 5 minims; oil lavender flowers, 5 minims; oil rose, 3 minims; spirits ammonia, 15 minims. Put into the pungent a small piece of sponge filling about one-fourth the space, and pour on it a due proportion of the oils, then put in the mixed salts until the bottle is three-fourths full, and pour on the spirits of ammonia in proper proportion and close the bottle.

VOLATILE SALTS FOR PUNGENTS.—Liquor ammon., fort., 1 pint, oil lavender flowers, 1 dram, oil rosemary, fine, 1 dram, oil bergamot, ½ dram, oil peppermint, 10 minims. Mix thoroughly and fill pungents or

keep in well stoppered bottle. Another formula is, sesqui-carbonate of ammonia, small pieces, 10 ounces; concentrated liq. ammonia, 5 ounces. Put the sesqui-carb. in a wide mouth jar with air-tight stopper, perfume the liquor ammonia to suit and pour over the carbonate, close tightly the lid and place in a cool place, stir with a stiff spatula every other day for a week, and then keep it closed for two weeks, or until it becomes hard, when it is ready for use.

PASTE FOR PAPERING BOXES.—Boil water and stir in batter of wheat or rye flour. Let it boil one minute, take off and strain through a colander. Add, while boiling, a little glue or powdered alum. Do plenty of stirring while the paste is cooking, and make of consistency that will spread nicely.

AROMATIC SPIRIT OF VINEGAR.—Acetic acid, No. 8, pure, 8 ounces; camphor, ½ ounce. Dissolve and add oil lemon, oil lavender flowers, each 2 drams; oil cassia, oil cloves, ½ dram each. Thoroughly mix and keep in well stoppered bottle.

ROSE-WATER.—Preferable to the distilled for a perfume, or for culinary purposes: Attar of rose, 12 drops; rub it up with a half ounce of white sugar and 2 drams carbonate magnesia, then add gradually 1 quart of water and 2 ounces of proof spirit, and filter through paper.

BAY RUM.—French proof spirit, 1 gallon; extract bay, 6 ounces. Mix and color with caramel; needs no filtering.

FINE LAVENDER WATER.—Mix together, in a clean bottle, a pint of inodorous spirit of wine, an ounce of oil of lavender, a teaspoonful of oil of bergamot, and a tablespoonful of oil of ambergris.

THE VIRTUES OF TURPENTINE.—After a housekeeper fully realizes the worth of turpentine in the household, she is never willing to be without a supply of it. It gives quick relief to burns, it is an excellent application for corns, it is good for rheumatism and sore throats, and it is the quickest remedy for convulsions or fits. Then it is a sure preventive against moths; by just dropping a trifle in the bottom of drawers, chests and cupboards, it will keep the garments from injury during the summer. It will keep ants and bugs from closets and store-rooms by putting a few drops in the corners and upon the shelves; it is sure destruction to bedbugs, and will effectually drive them away from their haunts if thoroughly applied to all the joints of the bedstead in the spring cleaning time, and injures neither furniture nor clothing. A spoonful of it added to a pail of warm water is excellent for cleaning paint. A little in suds washing days lightens laundry labor.

PASTE FOR SCRAP BOOKS.—Take half a teaspoonful of starch, same of flour, pour on a little boiling water, let it stand a minute, add more water, stir and cook it until it is thick enough to starch a shirt bosom. It spreads smooth, sticks well and will not mold nor discolor paper. Starch alone will make a very good paste.

A STRONG PASTE.—A paste that will neither decay nor become moldy. Mix good clean flour with cold water into a thick paste well blended together, then add boiling water, stirring well up until it is of a consistency that ean be easily and smoothly spread with a brush; add to this a spoonful or two of brown sugar, a little corrosive sublimate, and about half a dozen drops of oil of lavender, and you will have a paste that will hold with wonderful tenacity.

A BRILLIANT PASTE.—A brilliant and adhesive paste, adapted to fancy articles, may be made by dissolving caseine precipitated from milk

by acetic acid and washed with pure water in a saturated solution of borax.

A SUGAR PASTE.—In order to prevent the gum from cracking, to 10 parts by weight of gum arabic and 3 parts of sugar, add water until the desired consistency is obtained. If a very strong paste is required, add a quantity of flour equal in weight to the gum, without boiling the mixture. The paste improves in strength when it begins to ferment.

TIN BOX CEMENT.—To fix labels to tin boxes either of the following will answer: 1. Soften good glue in water, then boil it in strong vinegar, and thicken the liquid while boiling with fine wheat flour, so that a paste results. 2. Starch paste, with which a little Venice turpentine has been incorporated while warm.

PAPER AND LEATHER PASTE.—Cover 4 parts, by weight, of glue, with 15 parts of cold water, and allow it to soak for several hours, then warm moderately till the solution is perfectly clear, and dilute with 60 parts of boiling water, intimately stirred in. Next prepare a solution of 30 parts of starch in 200 parts of cold water, so as to form a thin homogeneous liquid, free from lumps, and pour the boiling glue solution into it with thorough stirring, and at the same time keepthe mass boiling.

COMMERCIAL MUCILAGE.—The best quality of mucilage in the market is made by dissolving clear glue in equal volumes of water and strong vinegar, and adding one-fourth of an equal volume of alcohol and a small quantity of a solution of alum in water. Some of the cheaper preparations offered for sale are merely boiled starch or flour, mixed with nitric acid to prevent their gelatinizing.

ACID-PROOF PASTE.—A paste formed by mixing powdered glass with a concentrated solution of silicate of soda makes an excellent acid-proof cement.

PASTE TO FASTEN CLOTH TO WOOD.—Take a plump pound of wheat flour, one tablespoonful of powdered resin, one tablespoonful of finely powdered alum, and rub the mixture in a suitable vessel, with water, to a uniform, smooth paste; transfer this to a small kettle over a fire, and stir until the paste is perfectly homogeneous without lumps. As soon as the mass has become so stiff that the stirrer remains upright in it, transfer it to another vessel and cover it up so that no skin may form on its surface.

This paste is applied in a very thin layer to the surface of the table; the cloth, or leather, is then laid and pressed upon it, and smoothed with a roller. The ends are cut off after drying. If leather is to be fastened on, this must first be moistened with water. The paste is then applied, and the leather rubbed smooth with a cloth.

PASTE FOR PRINTING OFFICE.—Take 2 gallons of cold water and 1 quart of wheat flour, rub out all the lumps, then add one-fourth pound of finely pulverized alum and boil the mixture for 10 minutes, or until a thick consistency is reached. Now add 1 quart of hot water and boil again until the paste becomes a pale brown color, and thick. The paste should be well stirred during both processes of cooking. Paste thus made will keep sweet for two weeks and prove very adhesive.

TO TAKE SMOKE STAINS FROM WALLS.—An easy and sure way to remove smoke stains from common plain ceilings is to mix wood ashes with the whitewash just before applying, A pint of ashes to a small pail of whitewash is sufficient, but a little more or less will do no harm.

TO REMOVE STAINS FROM BROADCLOTH.—Take an ounce of pipe-clay, which has been ground fine, mix it with twelve drops of alcohol

and the same quantity of spirits of turpentine. Whenever you wish to remove any stains from cloth, moisten a little of this mixture with alcohol and rub it on the spots. Let it remain till dry, then rub it off with a woolen cloth, and the spots will disappear.

To Remove Red Stains of Fruit from Linen.—Moisten the cloth and hold it over a piece of sulphur, then wash thoroughly, or else the spots may reappear.

To Remove Oil Stains.—Take 3 ounces of spirits of turpentine, and 1 ounce of essence of lemon, mix well, and apply it as you would any other scouring drops. It will take out all the grease.

Iron Stains may be removed by the salt of lemons. Many stains may be removed by dipping the linen in sour buttermilk, and then drying it in a hot sun; wash it in cold water, repeat this three or four times.

To Remove Oil Stains from Wood.—Mix together fuller's earth and soap lees, and rub it into the boards. Let it dry and then scour it off with some strong soft soap and sand, or use lees to scour it with. It should be put on hot, which may easily be done by heating the lees.

To Remove Tea Stains.—Mix thoroughly soft soap and salt—say a tablespoonful of salt to a teacupful of soap, rub on the spots and spread the cloth on the grass where the sun will shine on it. Let it lie two or three days, then wash. If the spots are wet occasionally while lying on the grass, it will hasten the bleaching.

To Remove Stains from Muslin.—If you have stained your muslin or gingham dress, or your white pants with berries, before wetting with anything else, pour boiling water through the stains and they will disappear. Before fruit juice dries it can often be removed by cold water, using a sponge and towel if necessary.

To Remove Acid Stains.—Stains caused by acids may be removed by tying some pearlash up in the stained part; scrape some soap in cold, soft water, and boil the linen until the stain is gone.

To Disinfect Sinks and Drains.—Copperas dissolved in water, one-fourth of a pound to a gallon, and poured into a sink and water drain occasionally, will keep such places sweet and wholesome. A little chloride of lime, say half a pound to a gallon of water, will have the same effect, and either of these costs but a trifle.

A preparation may be made at home which will answer about as well as the chloride of lime. Dissolve a bushel of salt in a barrel of water, and with the salt water slack a barrel of lime, which should be made wet enough to form a thin paste or wash.

To Disinfect a Cellar.—A damp, musty cellar may be sweetened by sprinkling upon the floor pulverized copperas, chloride of lime, or even common lime. The most effective means we have ever used to disinfect decaying vegetable matter is chloride of lime in solution. One pound may be dissolved in two gallons of water. Plaster of Paris has also been found an excellent absorbent of noxious odors. If used one part with three parts of charcoal, it will be found still better.

How to Thaw Out a Water Pipe.—Water pipes usually freeze up when exposed, for inside the walls, where they cannot be reached, they are or should be packed to prevent freezing. To thaw out a frozen pipe bundle a newspaper into a torch, light it, and pass it along the pipe slowly. The ice will yield to this much quicker than to hot water or wrappings of hot cloths, as is the common practice.

To Prevent Mold.—A small quantity of carbolic acid added to

paste, mucilage and ink, will prevent mold. An ounce of the acid to a gallon of whitewash will keep cellars and dairies from the disagreeable odor which often taints milk and meat kept in such places.

ECONOMICAL FIRE KINDLER.—One may be made by dipping corn cobs into a mixture of melted resin and tar, and drying.

HOW TO KEEP EGGS FRESH.—The great secret in keeping eggs consists in entirely excluding the air from the interior. The lining next to the shell is, in its natural state, impervious to air, and the albumen is calculated to sustain it, but dampness and heat will cause decay, and, if the egg is allowed to lie in one position, especially upon one side, the yolk sinks through the albumen and settles upon the lining, and, not possessing proper qualities for preserving the skin in a healthy condition, it dries, and air penetrates, and begins the work of destruction. Where eggs are set upon their small ends, the yolk is much less liable to reach the lining of the shell. Where eggs are packed in a barrel, keg or bucket, it is a good plan to turn the whole quantity on to a different side once in a while

INDELIBLE INK.—An indelible ink that cannot be erased, even with acids, can be obtained from the following recipe: To good gall ink add a strong solution of Prussian blue dissolved in distilled water. This will form a writing fluid which cannot be erased without destruction of the paper. The ink will write greenish blue, but afterward will turn black.

TO GET A BROKEN CORK OUT OF A BOTTLE.—If in drawing a cork, it breaks, and the lower part falls down into the liquid, tie a long loop in a bit of twine, or small cord, and put it in, holding the bottle so as to bring the piece of cork near to the lower part of the neck. Catch it in the loop, so as to hold it stationary. You can easily extract it with a corkscrew.

A WASH FOR CLEANING SILVER.—Mix together half an ounce of fine salt, half an ounce of powdered alum, and half an ounce of cream of tartar. Put them into a large white-ware pitcher, and pour on two quarts of water, and stir them frequently, till entirely dissolved. Then transfer the mixture to clean bottles, and cork them closely. Before using it, shake the bottles well. Pour some of the liquid into a bowl, and wash the silver all over with it, using an old, soft, fine linen cloth. Let it stand about ten minutes, and then rub it dry, with a buckskin. It will make the silver like new.

TO REMOVE THE ODOR FROM A VIAL.—The odor of its last contents may be removed from a vial by filling it with cold water, and letting it stand in any airy place uncorked for three days, changing the water every day.

TO LOOSEN A GLASS STOPPER.—The manner in which apothecaries loosen glass stoppers when there is difficulty in getting them out, is to press the thumb of the right hand very hard against the lower part of the stopper, and then give the stopper a twist the other way, with the thumb and forefinger of the left hand, keeping the bottle stiff in a steady position.

TO MAKE SHOES OR BOOTS WATER-PROOF.—Melt together, in a pipkin, equal quantities of beeswax and mutton suet. While liquid rub it over the leather, including the soles

TO SOFTEN BOOTS AND SHOES.—Kerosene will soften boots and shoes which have been hardened by water, and render them as pliable as new.

TO REMOVE STAINS, SPOTS, AND MILDEW FROM FURNITURE.—Take half a pint of ninety-eight per cent. alcohol, a quarter of an ounce

each of pulverized resin and gum shellac, add half a pint of linseed oil, shake well and apply with a brush or sponge. Sweet oil will remove finger marks from varnished furniture, and kerosene from oiled furniture.

To FRESHEN GILT FRAMES.—Gilt frames may be revived by carefully dusting them, and then washing with one ounce of soda beaten up with the whites of three eggs. Scraped patches should be touched up with gold paint. Castile soap and water, with proper care, may be used to clean oil paintings. Other methods should not be employed without some skill.

To FILL CRACKS IN PLASTER.—Use vinegar instead of water to mix your plaster of Paris. The resultant mass will be like putty, and will not "set" for twenty or thirty minutes, whereas if you use water the plaster will become hard almost immediately, before you have time to use it. Push it into the cracks and smooth it off nicely with a tableknife

To TOUGHEN LAMP CHIMNEYS AND GLASSWARE.—Immerse the article in a pot filled with cold water, to which some common salt has been added. Boil the water well, then cool slowly. Glass treated in this way will resist any sudden change of temperature.

To REMOVE PAINT FROM WINDOW-GLASS.—Rub it well with hot, sharp vinegar.

To CLEAN STOVEPIPE.—A piece of zinc put on the live coals in the stove will clean out the stovepipe.

To BRIGHTEN CARPETS.—Carpets, after the dust has been beaten out, may be brightened by scattering upon them cornmeal mixed with salt and then sweeping it off. Mix salt and meal in equal proportions. Carpets should be thoroughly beaten on the wrong side first and then on the right side, after which spots may be removed by the use of ox-gall or ammonia and water.

KEROSENE STAINS IN CARPETS may be removed by sprinkling buckwheat flour over the spot. If one sprinkling is not enough, repeat.

To KEEP FLOWERS FRESH exclude them from the air. To do this wet them thoroughly, put them in a damp box, and cover with wet raw cotton, or wet newspaper, then place in a cool spot. To preserve bouquets, put a little saltpetre in the water you use for your bouquets, and the flowers will live for a fortnight.

To PRESERVE BROOMS.—Dip them for a minute or two in a kettle of boiling suds once a week and they will last much longer, making them tough and pliable. A carpet wears much longer swept with a broom cared for in this manner.

To CLEAN BRASSWARE.—Mix 1 ounce of oxalic acid, 6 ounces of rotten stone, all in powder, 1 ounce of sweet oil, and sufficient water to make a paste. Apply a small proportion and rub dry with a flannel or leather. The liquid dip most generally used consists of nitric and sulphuric acids, but this is more corrosive.

POLISH OR ENAMEL FOR SHIRT BOSOMS is made by melting together 1 ounce of white wax and 2 ounces of spermaceti; heat gently and turn into a very shallow pan; when cold cut or break in pieces. When making boiled starch the usual way, enough for a dozen bosoms, add to it a piece of the polish the size of a hazel nut.

To KEEP OUT MOSQUITOES.—If a bottle of the oil of pennyroyal is left uncorked in a room at night, not a mosquito, nor any other blood-sucker, will be found there in the morning.

DESTRUCTION OF RATS.—The following recipe for the destruction originated with Dr. Ure, and is highly recommended as the best-known

means of getting rid of these most obnoxious and destructive vermin. Melt hog's lard in a bottle plunged in water, heated to about 150 degrees of Fahrenheit, mix with it half an ounce of phosphorus for every pound of lard, then add a pint of proof spirit, or whisky, cork the bottle firmly after its contents have been heated to 150 degrees, taking it at the same time out of the water, and agitate smartly until the phosphorus becomes uniformly diffused, forming a milky-looking liquid. This liquid, being cooled, will afford a white compound of phosphorus and lard, from which the spirit spontaneously separates, and may be poured off to be used again for the same purpose, but not for drinking, for none of it enters into the combination, but it merely serves to comminute the phosphorus, and diffuse it in very small particles through the lard. This compound, on being warmed very gently, may be poured out into a mixture of wheat flour and sugar, incorporated therewith, and then flavored with oil of rhodium, or not, at pleasure. The flavor may be varied with oil of aniseed, etc. This dough being made into pellets, is to be laid into rat holes. By its luminousness in the dark, it attracts their notice, and, being agreeable to their palates and noses, it is readily eaten, and proves certainly fatal.

To KILL COCKROACHES.—A teacupful of well-bruised plaster of Paris, mixed with double the quantity of oatmeal, to which a little sugar may be added, although this last-named ingredient is not essential. Strew it on the floor or into the chinks where they frequent.

EARWIGS are very destructive insects, their favorite food being the petals of roses, pinks, dahlias and other flowers. They may be caught by driving stakes into the ground, and placing on each an inverted flower-pot, for the earwigs will climb up and take refuge under the pot, when they may be taken out and killed. Clean bowls of tobacco pipes, placed in like manner on the tops of smaller sticks, are very good traps, or very deep holes may be made in the ground with a crowbar, into which they will fall, and may be destroyed by boiling water.

To DESTROY ANTS.—Drop some quicklime on the mouth of their nest, and wash it in with boiling water, or dissolve some camphor in spirits of wine, then mix with water, and pour into their haunts, or tobacco water, which has been found effectual. They are averse to strong scents. Camphor, or a sponge saturated with creosote, will prevent their infesting a cupboard. To prevent their climbing up trees, place a ring of tar about the trunk, or a circle of rag moistened occasionally with creosote.

To PREVENT MOTHS.—In the month of April or May, beat your fur garments well with a small cane or elastic stick, then wrap them up in linen without pressing them too hard, and put betwixt the folds some camphor in small lumps; then put your furs in this state in boxes well closed. When the furs are wanted for use, beat them well as before, and expose them for twenty-four hours to the air, which will take away the smell of the camphor. If the fur has long hair, as bear or fox, add to the camphor an equal quantity of black pepper in powder.

To GET RID OF MOTHS. 1. Procure shavings of cedar wood, and inclose in muslin bags, which can be distributed freely among the clothes.

2. Procure shavings of camphor wood, and inclose in bags.
3. Sprinkle pimento (allspice) berries among the clothes.
4. Sprinkle the clothes with the seeds of the musk plant.
5. To destroy the eggs, when deposited in woolen cloths, etc., use a

solution of acetate of potash in spirits of rosemary, fifteen grains to the pint.

BED BUGS.—Spirits of naphtha rubbed with a small painter's brush into every part of the bedstead is a certain way of getting rid of bugs. The mattress and binding of the bed should be examined, and the same process attended to, as they generally harbor more in these parts than in the bedstead. Ten cents' worth of naphtha is sufficient for one bed.

BUG POISON.—Proof spirit, 1 pint; camphor, 2 ounces; oil of turpentine, 4 ounces; corrosive sublimate, 1 ounce. Mix. A correspondent says, "I have been for a long time troubled with bugs, and never could get rid of them by any clean and expeditious method until a friend told me to suspend a small bag of camphor to the bed, just in the center, overhead. I did so, and the enemy was most effectually repulsed and has not made his appearance since– not even for a reconnoissance!" This is a simple method of getting rid of these pests, and is worth a trial to see if it be effectual in other cases.

MIXTURE FOR DESTROYING FLIES.—Infusion of quassia, 1 pint; brown sugar, 4 ounces; ground pepper, 2 ounces. To be well mixed together, and put in small, shallow dishes when required.

TO DESTROY FLIES in a room, take half a teaspoonful of black pepper in powder, one teaspoonful of brown sugar, and 1 tablespoonful of cream, mix them well together, and place them in the room on a plate, where the flies are troublesome, and they will soon disappear.

HOW TO DESTROY INSECTS.—The Bureau of Entomology, Department of Agriculture, Washington, sends out the following, for use as insecticides on or about plants, etc.: London purple—To twenty pounds flour from one-quarter to one-half pound is added and well mixed. This is applied with a sifter or blower. With forty gallons of water one-quarter to one-half pound is mixed for spraying. Paris green—With twenty pounds of flour from three-quarters to one pound is mixed and applied by sifting or by a blower. The same amount of the insecticide to forty gallons of water is used as a spray. Bisulphate of Carbon—For use in the ground a quantity is poured or injected among the roots that are being infected. Against insects damaging stored grain or museum material a small quantity is used in an air-tight vessel. Carbolic acid—A solution of 1 part in 100 of water is used against parasites on domestic animals and their barns and sheds; also on the surface of plants and among the roots in the ground. Hellebore—The powder is sifted on alone or mixed one part to twenty of flour. With one gallon of water one-quarter pound is mixed for spraying. Kerosene-Milk Emulsion—To one part milk add two parts kerosene, and churn by force-pump or other agitator. The butter-like emulsion is diluted ad libitum with water. An easier method is to simply mix 1 part kerosene with 8 of milk. Soap Emulsion—In one gallon hot water one-half pound whale oil soap is dissolved. This, instead of milk, is mixed to an emulsion with kerosene in the same manner and proportion as above. Pyrethrum, Persian Insect powder—Is blown or sifted on dry, also applied in water one gallon to a tablespoonful of the powder, well stirred and then sprayed. Tobacco Decoction—This is made as strong as possible as a wash or spray to kill insect pests on animals and plants.

ACCIDENTS AND INJURIES.

PRICELESS GENERAL RULES.—If an artery is cut, red blood spurts. Compress it above the wound. If a vein is cut, dark blood flows Compress it below and above.

If choked, go upon all fours and cough.

For slight burns, dip the part in cold water; if the skin is destroyed, cover with varnish or linseed oil.

For apoplexy, raise the head and body; for fainting, lay the person flat.

Send for a physician when a serious accident of any kind occurs, but treat as directed until he arrives.

SCALDS AND BURNS.—The following facts cannot be too firmly impressed on the mind of the reader, that in either of these accidents the *first, best* and *often the only remedies required*, are sheets of wadding, fine wool, or carded cotton, and in the default of these, violet powder, flour, magnesia, or chalk. The object for which these several articles are employed is the same in each instance; namely, to exclude the air from the injured part; for if the air can be effectually shut out from the raw surface, and care is taken not to expose the tender part till the new cuticle is formed, the cure may be safely left to nature. The moment a person is called to a case of scald or burn, he should cover the part with a sheet, or a portion of a sheet, of wadding, taking care not to break any blister that may have formed, or stay to remove any burnt clothes that may adhere to the surface, but as quickly as possible envelop every part of the injury from all access of the air, laying one or two more pieces of wadding on the first, so as effectually to guard the burn or scald from the irritation of the atmosphere; and if the article used is wool or cotton, the same precaution, of adding more material where the surface is thinly covered, must be adopted; a light bandage finally securing all in their places. Any of the popular remedies recommended below may be employed when neither wool, cotton nor wadding are to be procured, it being always remembered that that article which will best exclude the air from a burn or scald is the best, quickest, and least painful mode of treatment. And in this respect nothing has surpassed cotton loose or attached to paper as in wadding.

If the skin is much injured in burns, spread some linen pretty thickly with chalk ointment, and lay over the part, and give the patient some brandy and water if much exhausted; then send for a medical man. If not much injured, and very painful, use the same ointment, or apply carded cotton dipped in lime water and linseed oil. If you please, you may lay cloths dipped in either over the parts, or cold lotions. Treat scalds in same manner, or cover with scraped raw potato; but the chalk ointment is the best. In the absence of all these, cover the injured part with treacle, and dust over it plenty of flour.

BODY IN FLAMES.—Lay the person down on the floor of the room, and throw the table cloth, rug, or other large cloth over him, and roll him on the floor.

DIRT IN THE EYE.—Place your forefinger upon the cheek-bone, having the patient before you; then slightly bend the finger; this will draw down the lower lid of the eye, and you will probably be able to remove the dirt; but if this will not enable you to get at it, repeat this operation while you have a netting-needle or bodkin placed over the eyelid; this will turn it inside out, and enable you to remove the sand or

eyelash, etc., with the corner of a fine silk handkerchief. As soon as the substance is removed, bathe the eye with cold water, and exclude the light for a day. If the inflammation is severe, let the patient use a refrigerant lotion.

LIME IN THE EYE.—Syringe it well with warm vinegar and water in the proportion of one ounce of vinegar to eight ounces of water; exclude light.

IRON OR STEEL SPICULÆ IN THE EYE.—These occur while turning iron or steel in a lathe, and are best remedied by doubling back the upper or lower eyelid, according to the situation of the substance, and with the flat edge of a silver probe, taking up the metallic particle, using a lotion made by dissolving six grains of sugar of lead and the same of white vitriol, in six ounces of water, and bathing the eye three times a day till the inflammation subsides. Another plan is—Drop a solution of sulphate of copper (from one to three grains of the salt to one ounce of water) into the eye, or keep the eye open in a wineglassful of the solution. Bathe with cold lotion, and exclude light to keep down inflammation.

DISLOCATED THUMB.—This is frequently produced by a fall. Make a clove hitch, by passing two loops of cord over the thumb, placing a piece of rag under the cord to prevent it cutting the thumb; then pull in the same line as the thumb. Afterwards apply a cold lotion.

CUTS AND WOUNDS.—Clean cut wounds, whether deep or superficial, and likely to heal by the first intention, should always be washed or cleaned, and at once evenly and smoothly closed by bringing both edges close together, and securing them in that position by adhesive plaster. Cut thin strips of sticking plaster, and bring the parts together; or if large and deep, cut two broad pieces, so as to look like the teeth of a comb, and place one on each side of the wound, which must be cleaned previously. These pieces must be arranged so that they shall interlace one another; then, by laying hold of the pieces on the right side with one hand, and those on the other side with the other hand, and pulling them from one another, the edges of the wound are brought together without any difficulty.

Ordinary cuts are dressed by thin strips, applied by pressing down the plaster on one side of the wound, and keeping it there and pulling in the opposite direction; then suddenly depressing the hand when the edges of the wound are brought together.

CONTUSIONS are best healed by laying a piece of folded lint, well wetted with extract of lead, or boracic acid, on the part, and, if there is much pain, placing a hot bran poultice over the dressing, repeating both if necessary, every two hours. When the injuries are very severe, lay a cloth over the part, and suspend a basin over it filled with cold lotion. Put a piece of cotton into the basin, so that it shall allow the lotion to drop on the cloth, and thus keep it always wet.

HEMORRHAGE, when caused by an artery being divided or torn, may be known by the blood issuing out of the wound in leaps or jerks, and being of bright scarlet color. If a vein is injured, the blood is darker and flows continuously. To arrest the latter, apply pressure by means of a compress and bandage. To arrest arterial bleeding, get a piece of wood (part of a broom handle will do), and tie a piece of tape to one end of it; then tie a piece of tape loosely over the arm, and pass the other end of the wood under it; twist the stick round and round until the tape compresses the arm sufficiently to arrest the bleeding, and then confine

the other end by tying the string around the arm. A compress made by enfolding a penny piece in several folds of lint or linen should, however, be first placed under the tape and over the artery. If the bleeding is very obstinate, and it occurs in the *arm*, place a cork underneath the string, on the inside of the fleshy part, where the artery may be felt beating by any one; if in the *leg*, place a cork in the direction of a line drawn from the inner part of the knee towards the outer part of the groin. It is an excellent thing to accustom yourself to find out the position of these arteries, or, indeed, any that are superficial, and to explain to every person in your house where they are, and how to stop bleeding. If a stick cannot be got, take a handkerchief, make a cord bandage of it, and tie a knot in the middle; the knot acts as a compress, and should be placed over the artery, while the two ends are to be tied around the thumb. Observe *always to place the ligature between the wound and the heart.* Putting your finger into a bleeding wound, and making pressure until a surgeon arrives, will generally stop violent bleeding.

BLEEDING FROM THE NOSE, from whatever cause, may generally be stopped by putting a plug of lint into the nostrils; if this does not do, apply a cold lotion to the forehead; raise the head, and place over it both arms, so that it will rest on the hands; dip the lint plug, *slightly moistened*, into some powdered gum arabic, and plug the nostrils again; or dip the plug into equal parts of powdered gum arabic and alum and plug the nose. Or the plug may be dipped in Friar's balsam, or tincture of kino. Heat should be applied to the feet; and, in obstinate cases, the sudden shock of a cold key, or cold water poured down the spine, will often instantly stop the bleeding. If the bowels are confined, take a purgative. Injections of alum solution from a small syringe into the nose will often stop hemorrhage.

VIOLENT SHOCKS will sometimes stun a person, and he will remain unconscious. Untie strings, collars, etc.; loosen anything that is tight, and interferes with the breathing; raise the head; see if there is bleeding from any part; apply smelling-salts to the nose, and hot bottles to the feet.

IN CONCUSSION, the surface of the body is cold and pale, and the pulse weak and small, the breathing slow and *gentle*, and the pupil of the eye generally contracted or small. You can get an answer by speaking loud, so as to arouse the patient. Give a little brandy and water, keep the place quiet, apply warmth, and do not raise the head too high. If you tickle the feet the patient feels it.

IN COMPRESSION OF THE BRAIN from any cause, such as apoplexy, or a piece of fractured bone pressing it, there is loss of sensation. If you tickle the feet of the injured person he does not feel it. You cannot arouse him so as to get an answer. The pulse is slow and labored; the breathing deep, labored, and *snorting*; the pupil enlarged. Raise the head, loosen strings or tight things, and send for a surgeon. If one cannot be got at once, apply mustard poultices to the feet and thighs, leeches to the temples, and hot water to the feet.

CHOKING.—When a person has a fish bone in the throat, insert the forefinger, press upon the root of the tongue, so as to induce vomiting; if this does not do, let him swallow a *large piece* of potato or soft bread; and if these fail, give a mustard emetic.

FAINTING, HYSTERICS, ETC.—Loosen the garments, bathe the temples with water, or eau-de-Cologne; open the window, admit plenty of fresh air, dash cold water on the face, apply hot bricks to the feet, and avoid bustle and excessive sympathy.

DROWNING.—Attend to the following *essential rules*:—1. Lose no time. 2. Handle the body gently. 3. Carry the body face downwards, with the head gently raised, and never hold it up by the feet. 4. Send for medical assistance immediately, and in the meantime act as follows: 5. Strip the body; rub it dry, then wrap it in hot blankets, and place it in a warm bed in a warm room. 6. Cleanse away the froth and mucus from the nose and mouth. 7. Apply warm bricks, bottles, bags of sand, etc., to the armpits, between the thighs, and to the soles of the feet. 8. Rub the surface of the body with the hands inclosed in warm, dry worsted socks. 9. If possible, put the body into a warm bath. 10. To restore breathing, put the pipe of a common bellows into one nostril, carefully closing the other, and the mouth; at the same time drawing downwards, and pushing gently backwards, the upper part of the windpipe, to allow a more free admission of air; blow the bellows gently, in order to inflate the lungs, till the breast be raised a little; then set the mouth and nostrils free, and press gently on the chest; repeat this until signs of life appear. The body should be covered the moment it is placed on the table, except the face, and all the rubbing carried on under the sheet or blanket. When they can be obtained, a number of tiles or bricks should be made tolerably hot in the fire, laid in a row on the table, covered with a blanket, and the body placed in such a manner on them that their heat may enter the spine. When the patient revives, apply smelling-salts to the nose, give warm wine or brandy and water. *Cautions:*—1. Never rub the body with salt or spirits. 2. Never roll the body on casks. 3. Continue the remedies for twelve hours without ceasing.

HANGING.—Loosen the cord, or whatever it may be by which the person has been suspended. Open the temporal artery or jugular vein, or bleed from the arm; employ electricity, if at hand, and proceed as for drowning, taking the additional precaution to apply eight or ten leeches to the temples.

APPARENT DEATH FROM DRUNKENNESS.—Raise the head; loosen the clothes, maintain warmth of surface, and give a mustard emetic as soon as the person can swallow.

APOPLEXY AND FITS GENERALLY.—Raise the head; loosen all tight clothes, strings, etc.; apply cold lotions to the head, which should be shaved; apply leeches to the temples, bleed and send for a surgeon.

SUFFOCATION FROM NOXIOUS GASES, ETC.—Remove to the fresh air; dash cold vinegar and water in the face, neck and breast; keep up the warmth of the body; if necessary, apply mustard poultices to the soles of the feet and to the spine, and try artificial respirations as in drowning, with electricity.

LIGHTNING AND SUNSTROKE.—Treat the same as apoplexy

ANTIDOTES FOR POISONS.

Always send immediately for a medical men. Save all fluids vomited, and articles of food, cups, glasses, etc., used by the patient before taken ill, and lock them up. This precaution frequently leads to the detection of crime.

As a rule, give emetics after poisons that cause sleepiness and ravings: chalk, milk, eggs, butter, and warm water, or oil, after poisons that cause vomiting and pain in the stomach and bowels, with purging; and when there is no inflammation about the throat, tickle it with a feather to excite vomiting.

Vomiting may be caused by giving warm water, with a teaspoonful of mustard to the tumblerful, well stirred up. Sulphate of zinc (with vitriol) may be used in place of the mustard, or powdered alum. Powder of ipecacuanha, a teaspoonful rubbed up with molasses, may be employed for children. Tartar emetic should never be given, as it is excessively depressing, and uncontrollable in its effects. The stomach pump can only be used by skillful hands, and even then with caution.

In opium and other narcotics, after vomiting has occurred, cold water should be dashed over the face and head. The patient must be kept awake, walked about between two strong persons, made to grasp the handles of a galvanic battery, dosed with strong coffee, and vigorously slapped. Belladonna is an antidote for opium and for morphia, etc., its active principle; and, on the other hand, the latter counteract the effects of belladonna. But a knowledge of medicines is necessary for dealing with these articles.

In the case of strychnia, after emetics have been freely and successfully given, the patient should be allowed to breathe the vapor of sulphuric ether, poured on a handerchief and held to the face, in such quantities as to keep down the tendency to convulsions. Bromide of potassium, twenty grains to a dose, dissolved in syrup, may be given every hour.

Alcoholic poisoning should be combated by emetics, of which the sulphate of zinc, given as above directed, is the best. After that, strong coffee internally, and stimulation by heat externally, should be used.

Acids are sometimes swallowed by mistake. Alkalies, lime water, magnesia, or common chalk mixed with water, may be freely given, and afterward mucilaginous drinks, such as thick gum water or flaxseed tea.

Alkalies are less frequently taken in injurious strength or quantity, but sometimes children swallow lye by mistake. Common vinegar may be given freely, and then castor or sweet oil in full doses—a tablespoonful at a time, repeated every half hour or two.

Nitrate of silver when swallowed is neutraitzed by common table salt freely given in solution in water.

HOW TO CARVE AT TABLE.

We propose to give here a few rules upon the practice of carving, which may be of benefit to the tyro, and help him to acquire that ease and dexterity which is so conducive to peace and comfort around the family board:

In carving a sirloin of beef, the upper cuts should be made lengthwise of the beef, while the under cuts are crosswise—the under cuts being also much thicker than the upper cuts. As there is much difference of opinion as to which is the choicest piece, it is best for the carver to ask his guests which cut they prefer.

Rib roasts, rolled, and a round of beef are always cut in very thin horizontal slices across the whole surface of the meat. It is essential, though, that these slices be quite thin.

The leg, the loin, the shoulder and the saddle are the four pieces of mutton usually brought to the table to be carved. First, as to the leg: This must be placed on the table with the knuckle to the left hand. Then cut into the side farthest from you toward the bone, helping thin slices from the right and thick slices toward the knuckle. Always divide the little bunch of fat near the thick end among your guests, as it is a great delicacy.

A saddle of mutton is often ordered for a small dinner party. It is cut in very thin slices, close to the back-bone, and then downward.

Place a "shoulder" with the knuckle toward the right hand, the blade bone toward the left. Place your fork firmly in the middle of the edge farthest from you, and cut dexterously from the edge to the bone. This causes the meat to fly open, when you can cut slices on each side of the opening, until there is no more to cut, when the meat should be

turned over and slices cut from the under side. Another method of carving this joint is to cut slices lengthwise from the end to the knuckle.

The loin of mutton, which is a piece intended specially for family use, should be carved either through the joints or may be cut lengthwise in a parallel line with the joints.

A fillet of veal is, in shape and appearance, very similar to a round of beef, and is carved in the same way by cutting horizontal slices over the whole surface of the meat. The slices, however, should not be nearly so thin as beef. A fillet of veal is cut from the leg, the bone is removed by the butcher, and the pocket thus made is filled with dressing, which is taken out and helped with a spoon by the carver.

A breast of veal may be either roasted or stewed. If used as a roasting piece, you will have the butcher make an opening or hole in it for the reception of the dressing. In carving it, the ribs may be separated from the brisket, and sent round.

A fore-quarter of lamb consists of shoulder, breast and ribs. The knife must be first placed upon the shoulder, drawn through horizontally, and the joint removed and placed upon another dish. The ribs can then be separated, and the breast sliced and sent around.

A calf's head, which is by some considered a delicacy, must be cut down the center in thin slices on each side. A small piece of the palate, of the sweet-bread, and of the meat around the eye, must be put on each plate and sent round.

In carving a haunch of venison, make a cut across close to knuckle, after which cut slices by making straight incisions lengthwise.

There are three methods allowed in carving a ham: The most common one probably is to cut it like a leg of mutton, beginning in the middle, and cutting either way. You may, however, begin at the knuckle, cutting slices in a slanting direction, or you may begin at the thick end. The slices must always be as thin and delicate as possible, and are the usual accompaniment to fowl or veal.

Tongue must always be cut in thin, regular slices. Make the first a short distance from the tip, where a slice of some size may be attained. The tip is considered quite a tid-bit by some people.

In carving a chicken, first cut off the wings. This is easily done by learning where to strike the joint. Then slice the breast, and cut off the merry-thought and side bones. The breast should always be helped first, then the wings—the liver wing being the better of the two. It is better to always reserve a small slice of the white meat to be served with the dark.

Pigeon, snipe and quail are cut in half, and a piece sent to each guest. When the birds are small, you send a whole one.

Goose and turkey are helped by cutting slices off the breast, and then the wings and legs are removed. The breast is considered the best meat, and after that the wings.

Boiled rabbit is carved thus: First cut off the legs; then take out the shoulders with a sharp-pointed knife, then break the back into three or four pieces at the joint. The back is the choice help, especially the piece in the center. The shoulder is next in order after the back, and the leg comes last. The kidney is a delicate bit.

For cutting fish a regular silver fish-slice is provided. Salmon and all fish of that order are cut in slices down the middle of the upper side, and then in slices across on the under side. A piece of each should be helped to all.

Mackerel divides among four people. Pass fish-knife between the upper and under half from head to tail, then halve each side, and help to a quarter.

Cut cod crosswise like salmon, then downward, and send a small piece round on each plate as well.

Large flat fish, as turbot, flounders, John Dorey, etc., are first cut down the middle from head to tail, then across to the fin, in slices. The fin, being considered a delicacy by some, should be helped, too.

Small fish, like smelts, whiting, etc., are sent whole to each guest.

CONDUCT AT TABLE.

Seat yourself in an upright position—not too close to nor yet too far from the table.

Take your napkin, partially unfold it and lay it across your lap. It is not the correct thing to fasten it to your button-hole or spread it over your breast.

Do not trifle with your knife or fork, or drum on the table, or fidget in any way, while waiting to be served.

Keep your hands quietly in your lap, your mind composed and pleasantly fixed upon the conversation. Let all your movements be easy and deliberate. Undue haste indicates a nervous lack of ease.

Should grace be said, you will give the most reverent attention in respectful silence during the ceremony.

Exhibit no impatience to be served. During the intervals between the courses is your opportunity for displaying your conversational abilities to those sitting near you. Pleasant chat and witty remarks compose the best possible sauce to a good dinner.

Eat slowly; it will contribute to your good health as well as your good manners. Thorough mastication of your food is necessary to digestion. An ordinary meal should occupy from thirty minutes to an hour.

You may not desire the soup, which is usually the first course, but you should not refuse to take it. You can eat as much or as little as you please, but you would look awkward sitting with nothing before you while the others are eating.

When eating soup, take it from the side of the spoon, and avoid making any noise in so doing.

Should you be asked by the host what part of the fowl you prefer, always have a choice, and mention promptly which you prefer. Nothing is more annoying than to have to serve two or three people who have no preferences and will take "anything."

Never place waste matter on the table-cloth. The side of your plate or side-dishes that have contained sauces or vegetables, will answer as a receptacle for bones, potato skins, etc.

You will use your fork to convey all your food to your mouth, except it may be certain sauces that would be more conveniently eaten with a spoon. For instance, you should not attempt to eat peas with a fork. If you are not provided with a spoon, ask for one.

The knife is used only for cutting meat and other articles of food, for spreading butter upon the bread, etc.

Here is the summary of blunders to avoid:

Do not eat fast.

Do not make noise with mouth or throat.

Do not fill the mouth too full.
Do not open the mouth in masticating
Do not leave the table with food in your mouth.
Be careful to avoid soiling the cloth.
Never carry anything like food with you from the table.
Never apologize to the waiters for making them trouble; it is their business to serve you. It is proper, however, to treat them with courtesy, and say "No, I thank you," or "If you please" in answer to their inquiries.
Do not introduce disgusting or unpleasant topics of conversation.
Do not pick your teeth or put your finger in your mouth at the table.
Do not come to table in your shirt sleeves, or with soiled hands or tousled hair.
Do not cut your bread; break it.
Do not refuse to take the last piece of bread or cake; it looks as though you imagined there might be no more.
Do not express a preference for any part of a dish unless asked to do so.

GEORGE WASHINGTON'S RULES OF CONDUCT.

Let your discourse with men of business be short and comprehensive.
In visiting the sick do not presently play the physician.
In the presence of others sing not to yourself with a humming noise, nor drum with your fingers or feet.
Read no letters, books or papers in company.
Come not near the book or writings of any one so as to read them, unless desired.
Let your countenance be pleasant, but in serious matters somewhat grave.
Show not yourself glad at the misfortune of another, even though he were your enemy.
Strive not with your superiors in argument, but always submit your judgment to others with modesty.
When a man does all he can, though it succeeds not well, blame not him that did it.
Mock not, nor jest at anything of importance; break no jests that are sharp-biting, and if you deliver anything witty and pleasant, abstain from laughing thereat yourself.
Use no reproachful language against any one, neither curse nor revile.
Associate yourself with men of good quality, if you esteem your own reputation.
Be not immodest in urging your friend to discover a secret.
Speak not of doleful things in time of mirth, nor at the table.
Break not a jest where none takes pleasure in mirth.
Laugh not loud, nor at all without occasion.
Treat with men at fit times about business.
Whisper not in the company of others.
Make no comparisons, and if any of the company be commended for any brave act, commend not another for the same.
Be not curious to know the affairs of others, neither approach to those that speak in private.

Undertake not what you cannot perform, but be careful to keep your promise.

Be not tedious in discourse.

Speak not evil of the absent, for it is unjust.

Let your recreations be manful, not sinful.

CARE OF THE PERSON.

Cleanliness is the outward sign of inward purity. Cleanliness is health, and health is beauty.

The first business of the dressing-room is the bath, and this should be a complete bath, and not simply a hasty washing of the face. It is not to be supposed that a lady washes to become clean, but simply to remain clean. A bathing of the entire body at least once a day is essential to health. It is not necessary to have a bath tub for this purpose, but merely an ordinary basin of tepid water, with soap, sponge and clean towels.

The whole body may be quickly sponged off, or the sponge may be dispensed with, and the hands alone used to convey the water to the body, after which dry the body thoroughly with a soft towel, and then use a coarse Turkish towel vigorously until the skin is red from the friction. In lieu of the coarse towel, a liberal use of the flesh-brush may be made, but either one or both must be regularly used, as nothing tends to keep the complexion in good condition so much as the daily use of the flesh-brush.

Persons living in cities where Turkish baths are established will find a bath of this kind once a week very beneficial to their health. Oftener than this the baths would be apt to have an enervating effect. But an occasional Turkish bath is the most effectual cleanser in the world.

Early rising contributes not only to the preservation of health, but the proper condition of the mental faculties. Too much sleep induces minor ailments both of the body and mind. Fresh air, moderate exercise and good ventilation, together with the daily bath, are the great health-preservers.

THE TEETH.—Scrupulous care is necessary to the preservation of the teeth. The teeth should be carefully brushed, not only every night and morning, but after every meal.

The best and only needful tooth powder is a simple preparation of chalk. The numerous dentifrices advertised are most of them worthless, and many of them positively injurious.

A good tooth-brush, not too stiff, is necessary. Very hot and very cold things, and a great deal of sweets are injurious to the teeth.

Upon the first indication of decay, a good dentist should be consulted; cheap dentistry is bad economy.

THE BREATH.—It goes without saying that a sweet breath is one of the essentials of happiness, and should therefore be carefully looked to. The principal causes of a bad breath are a disordered stomach, decaying teeth and catarrhal affections. In the latter case a good specialist should be consulted. When it arises from digestive difficulty, the diet should be changed to one better suited to the system.

The eating of anything that will give an unpleasant odor to the breath is to be avoided.

THE NAILS.—Much care and attention is given to the nails by those who are particular in matters of the toilet. Of late years the care of the

nails has been elevated to a profession, and persons calling themselves "manicures" make it their business to dress the nails of ladies of fashion.

It is sufficient, however, if you keep the nails carefully and evenly trimmed—great care, however, being required to preserve the correct shape, and keep all superfluous skin entirely removed. Plenty of warm water, Windsor soap and a nail brush are all that is required to keep the hands in good condition.

THE HAIR.—The hair should be regularly brushed, morning and evening, with a clean hair brush. It is important that the brushing be frequent; it is also important that the brush be quite clean.

The brush should be washed every day with hot water and soda, in order to preserve a glossy appearance to the hair. Occasionally the hair may be cleaned with a mixture of glycerine and lime juice. Pomades and oil should be carefully avoided.

Never attempt to change the color of your hair by means of dyes and fluids. Your own hair, as nature colored it, is apt to be the only shade that will correspond with your eyes, eyebrows and complexion. Practices of this kind are much to be condemned. They indicate a senseless desire for fashion, and an equally unladylike desire to attract attention. The use of hair dyes, false hair, etc., is almost as much to be condemned as painted cheeks and penciled brows.

THE COMPLEXION.—As to the art of obtaining a good complexion, all the recipes in the world can have but little effect compared with the effects of early rising, regular habits, careful diet and absolute cleanliness. The various lotions recommended by Madame ——— and others of her ilk, the milk bath, pearl powders and washes of every kind, would never be needed if ladies were always careful to take plenty of exercise in the open air, wear broad brimmed hats in the sun, and veils in the wind.

The face should never be washed when heated from exercise. Wipe the perspiration from the skin, and wait until it is sufficiently cool before you bathe even in warm water. Rain water is the best for bathing purposes. If an eruption break out on the skin, consult a physician.

ETIQUETTE OF THE STREET.

A lady will bow first if she meets a gentleman acquaintance on the street.

A lady will not stop on the street to converse with a gentleman. If he wishes to chat with her he will turn and walk by her side until he has finished his conversation, then raise his hat and leave her.

It is not etiquette for a lady to take the arm of a gentleman on the street in the day time, unless he be a lover or a husband, and even then it is seldom done in America.

In England it is permissible for a lady to accept the arm of even an ordinary acquaintance on the street. In foreign cities it is not *comme il faut* for ladies to appear on the street at all without a gentleman.

A gentleman escorting two ladies may offer each an arm, but a lady should never under any circumstances walk between two gentlemen holding an arm of each.

On meeting friends or acquaintances on the street or in public places, you should be careful not to call their names so loudly as to attract the attention of those around.

Never call across the street, and never carry on a conversation in a public vehicle unless you are seated side by side.

Gentlemen should never stare at ladies on the street.

In walking with a lady a gentleman should take charge of any small parcel, book, etc., with which she may be burdened.

Never recognize a gentleman unless you are perfectly sure of his identity. Nothing is more awkward than a mistake of this kind.

A well-bred man must entertain no respect for the brim of his hat. True politeness demands that the hat be removed entirely from the head. Merely to nod or to touch the brim of your hat is a lack of courtesy. The body should not be bent at all in bowing.

A gentleman will always give a lady the inside of the walk on the street.

Ladies should avoid walking rapidly on the street, as it is ungraceful.

A gentleman walking with a lady should accommodate his step to hers. It looks exceedingly awkward to see a gentleman two or three paces ahead of a lady with whom he is supposed to be walking.

Staring at people, expectorating, looking back on the street, calling in a loud voice, laughing, etc., are very bad manners on the street.

A gentleman attending a lady will hold the door open for her to pass. He will also perform the same service for any lady passing in or out unattended.

A gentleman may assist a lady from an omnibus, or over a bad crossing, without the formality of an introduction. Having performed the service, he will bow and retire.

No gentleman will smoke when standing or walking with a lady on the street.

A quiet and unobtrusive demeanor upon the street is the sign of a true lady, who goes about her own affairs in a business-like way, and has always a pleasant nod and smile for friends and acquaintances.

HINTS ON TRAVELING.

Consider what route you intend taking when you are contemplating a journey, and decide definitely upon it. Go to the ticket office of the road and procure a time-table, where you will find the hour for leaving, together with names of stations on the road, etc.

When you intend taking a sleeping-berth, secure your ticket for same a day or two before you intend starting, so as to obtain a desirable location. A lower berth in the center of the car is always the most comfortable, as you escape the jar of the wheels and drafts from the opening door.

Take as little baggage as possible, and see that your trunks are strong and securely fastened. A good, stout leather strap is a safeguard against bursting locks.

In checking your baggage, look to the checks yourself, to make sure the numbers correspond. Having once received your check, you need not concern yourself further about your baggage. The company is responsible for its safe delivery

It is a wise precaution to have your name and address carefully written upon any small article of baggage, such as satchel, umbrella, duster, etc., so that in case you leave them in the car the railway employes may know where to send them.

An overcoat or package lying upon a seat is an indication that the seat is taken and the owner has only left temporarily. It would therefore be rude in you to remove the articles and occupy the seat.

It is only courteous for a gentleman, seeing a lady looking for a seat, to offer the one beside him, as she scarcely likes to seat herself beside him without such invitation, although she will, of course, if there are no entirely vacant seats, do so in preference to standing.

A courteous gentleman will also relinquish his place to two ladies, or a gentleman and lady who are together, and seek other accommodations. Such a sacrifice always receives its reward in grateful admiration of his character.

Ladies traveling alone, when addressed in a courteous manner by gentlemen, should reply politely to the remark; and in long journeys it is even allowable to enter into conversation without the formality of an introduction. But a true lady will always know how to keep the conversation from bordering on familiarity, and by a quiet dignity and sudden *hauteur* will effectually check any attempt at presumption on the part of her strange acquaintance.

Always consult the comfort of others when traveling. You should not open either door or window in a railway coach without first ascertaining if it will be agreeable to those near enough to be affected by it. Ladies, in particular, should remember that they have not chartered the whole coach, but only paid for a small fraction of it, and be careful not to monopolize the dressing room for two or three hours at a stretch, while half a dozen or more are waiting outside to arrange their toilets.

Genteel travelers will always carry their own toilet articles, and not depend on the public brush and comb.

A lady will avoid over-dressing in traveling. Silks and velvets, laces and jewelry are terribly out of place on a railroad train. The appointments of the traveler may be as elegant as you please, but they should be distinguished by exceeding plainness and quietness of tone. Some ladies have an idea that any old thing is good enough to travel in, and so look exceedingly shabby on the train.

SUCCESS AND ITS SECRETS

While it is impossible, in a world made up of widely differing individuals, to formulate a set of rules by which each could be shown the surest and swiftest way to secure success in life, still it is possible to call attention to certain qualities of mind and character whose possession has come to be universally looked upon as essential to those who may aspire to struggle into the front rank of the world's workers. As a matter of fact, it would be as difficult to define the common expression "success in life" as it would be to lay down a royal road which leads to it. Given a hundred definitions, from as many men, each treating the subject from his own standpoint, and no two of them would be found alike; and the opinion of each of these, as time passed along with its inevitable ups and downs, would be found to vary considerably. Flushed with recent success, the speculator to-day would see in the possession of millions and in the control of vast interests the only proper goal for a man of his great genius; tamed a few days later by unexpected reverses, and he sees in some conservative enterprise the fittest sphere of his future usefulness. Perhaps, then, without attempting the impossible, in a definition of success in life which will fit all who are seeking it, it will do to look upon it as the accomplishment of the laudable life-purpose of a man of natural

or cultivated parts, who has found an object in life worth living and working for, and has worked honestly and perseveringly to attain it. As a rule, the larger the endowment of those faculties which go to build up success in life, the higher the aim which accompanies them; but it must not be forgotten that man is the most cultivable of all God's creatures, and that by careful and intelligent study of the qualities which have enabled others to shine, one may acquire them and employ them in building up similar accomplishments. This being so, it does not lie in the power of the young man who feels that he possesses only a moderate share of intelligence, force and ability, to decide, on this account, that he is not called upon to make fight for one of the front places in the life of this generation. The most brilliant lives have often been those of men of ordinary gifts, who, exerting to the utmost such power as has been given them, have accomplished more than hundreds of men who were much more bountifully supplied with mental qualifications. If any man look among the circle of his acquaintances he will be surprised to see how few have made the voyage of life successfully, and sorrow cannot but arise when he considers the impotent conclusions to which young men of brilliant parts frequently come. Every day witnesses the triumph of patient and studious mediocrity, and men of great intellect are constantly being forced to acknowledge, with surprise, the success of persons whose abilities, in comparison with their own, have been deemed inconsiderable. These men know precisely the scope of their faculties, and never wander beyond them. They wait patiently for opportunities which are of the kind they can improve, and they never let one pass unimproved. Being unnoticed, they excite so much the less opposition, and at last they surprise the world by the attainment of an object which others deemed as far away from their ambition as it seemed beyond their reach.

HOW TO AVOID FAILURE.

It is a common thing, with both the brilliant and the mediocre, when the reward of their exertions and the result of their plans seem unsatisfactory, to blame the ever-ready scapegoat, bad luck, as the cause of the untoward outcome. One of the most healthful and profitable exercises which a young man who has just experienced failure of any kind can perform, will be to analyze the whole transaction with merciless candor, finding out just what proportion of the disaster is due to his own fault and what is due to fortuitous circumstances, and then make a cold-blooded comparison. If this was more generally done than it is, there would be far fewer believers in, or rather blamers of, luck as a business marplot than are at present to be found. To come down to the facts in the case, without going so far as to dispute the existence of such a thing as chance, in almost all cases of failure the cause is to be found in the man, and the reason it is not found there is because that is the last place in which the man hunts for it. "Untoward accidents," "fate," "destiny," "ill fortune," "evil star," "chance," "luck," or some other synonym of the scapegoat, suggests itself to the victim of ill-success and he consoles himself with charging upon it his failure. He has the poets on his side, too. Does not Shakspeare say:

> "There's a divinity that shapes our ends,
> Rough-hew them how we will."

And Byron:

> "Men are the sport of circumstances, when
> The circumstances seem the sport of men."

And after all has been said, it were better, perhaps, that the young business man place some little, very little, credence in luck's existence, just enough in fact, to cause him to so organize upon solid and substantial foundation each of his enterprises, and to so honestly and perseveringly conduct them, that the smallest possible loop-hole will be left for ill-luck to make its appearance.

CHOOSING AN OCCUPATION.

Is seldom an easy matter. In some few cases, a young man feels the possession of such an unmistakable bias to some peculiar profession that neither he nor his friends, have any hesitancy in deciding upon his future. It most cases, however there is no particular preference, and a wise decision is not reached before many considerations have been carefully weighed. In far too many cases wrong considerations are given attention, and a decision is reached whose ultimate result is a life failure which, had the profession been selected with greater wisdom, would not have happened. A socially ambitious father and mother check their young son's honest ambition to become a mechanic, send him to college and make a briefless barrister out of the material which could have been moulded into an honest and efficient artisan. Many a boy whose soul yearned for the higher walks of intellectual culture, to share in which he had been endowed, has been doomed by injudicious parents, who despised colleges, to dull life at a dry-goods counter or counting-room desk. Parents are not by any means infallible judges upon this point, and every young man about to start out in search of success in life should study himself carefully in order to discover his aptitudes. The natural bent may be hard to find, but the discovery will well repay the search. Historical biography teems with the lives of men whose peculiar aptitude was early displayed to the advantage of themselves and the world. Napoleon, a school boy at Brienne, led the mimic armies of his youthful associates; Nelson had conceived the idea of future greatness as a sailor before he entered the navy; Pascal contributed to the mathematical literature of his age before he was seventeen; Pope acknowledged that

"While yet a child and still a fool of fame,
I lisped in numbers, for the numbers came;"

Dryden illustrated the growth of natural aptitude when he wrote:

"What the child admired
The youth endeavored, and the man acquired;"

Michael Angelo stayed away from school to draw pictures; Murillo covered his text-books with them; West, at seven, plundered the cat's tail of hair with which to make pencils; Calhoun, a student, held his own in debate with the college president—and so on, until the examples of the theory of natural aptitude become too numerous for recapitulation.

Taking for granted that one has discovered, or believes that he has discovered his bent, he must beware of the danger which lies in fickleness of purpose, which may, shortly after the weariness of work begins to be felt, lead him to suppose that he has chosen unwisely, and that some other field of usefulness would be more suitable to his temper and parts. It is the practical repetition of the old story of the traveler in the express train sighing for the quiet pleasure of the farmer, whose broad fields are flying past, while the farmer looks longingly at the train as it passes by, and dreams of the enjoyable excitements of a life of endless bustle, stir and energy. Whatever the calling, there will be toil and trial for its follower, and these come from him rather than from the occupation, which might be changed a dozen times in the vain hope of escaping from

them. Having deliberately selected a profession, stick to it. The longer you remain in it, the more expert you become and the easier becomes the work and the larger the pay. It is only the early days which bring weariness and pain. These conquered by perseverance, the rest is easy, and the success in conquering the first pleadings of the siren fickleness of purpose, who is of closer kin to laziness than one might think, lays the corner-stone of success in life.

EXCELSIOR!

Having chosen his occupation, the young man of proper ambition will not be long in selecting for himself an honorable position in it, to be filled as soon as he has shown himself worthy and able. What men have accomplished shows that hardly any ambitious longing can be considered as unwise on the part of those who are willing to undertake all work and suffer all want in the struggle.

The extremest poverty has been no obstacle in the way of men devoted to the duty of self-culture. Professor Alexander Murray, the linguist, learned to write by scribbling his letters on an old wool-card with the end of a burnt heather-stem. The only book which his father, who was a poor shepherd, possessed, was a penny Shorter Catechism; but, that being thought too valuable for common use, was carefully preserved in a cupboard for the Sunday catechizings. Professor Moore, when a young man, being too poor to purchase Newton's "Principia," borrowed the book, and copied the whole of it with his own hand. Many poor students, while laboring daily for their living, have only been able to snatch an atom of knowledge here and there at intervals, as birds do their food in winter time when the fields are covered with snow. They have struggled on, and faith and hope have come to them. A well known author and publisher, William Chambers, of Edinburgh, speaking before an assemblage of young men in that city, thus briefly described to them his humble beginnings for their encouragement: "I stand before you," he said, "a self-educated man. My education is that which is supplied at the humble parish-schools of Scotland; and it was only when I went to Edinburgh, a poor boy, that I devoted my evenings, after the labors of the day, to the cultivation of that intellect which the Almighty has given me. From seven or eight in the morning till nine or ten at night was I at my business as a bookseller's apprentice, and it was only during hours after these, stolen from sleep, that I could devote myself to study. I did not read novels; my attention was devoted to physical science and other useful matters. I also taught myself French. I look back to those times with great pleasure, and am almost sorry I have not to go through the same experience again; for I reaped more pleasure when I had not a sixpence in my pocket, studying in a garret in Edinburgh, than I now find when sitting amid all the elegancies and comforts of a parlor."

William Cobbett learned English grammar when he was a private soldier on the pay of sixpence a day.

These are men who have selected an aim in life and have attained it through sticking to it. Concentration of purpose carried them through. The "Admirable Crichtons" are scarce geniuses, and no young man need be ashamed, in these days of special accomplishment, of having decided to follow a single pursuit in life—to become a man of one idea—provided it is a good one. Almost all the great men in war, literature, science, diplomacy, business, the professions, have been men of "one idea," not because they were incapable of harboring more than one, but because, having selected some one object as worthy of attainment, they

gave themselves up to it solely. It was often long of coming, but it came at last. Adam Smith gave ten years to his "Wealth of Nations;" Edward Gibbon, twenty to the "Decline and Fall of the Roman Empire;" Bishop Butler, twenty to his famous "Analogy;" Kant, fifty years to his metaphysical researches; Dr. Johnson, seven years to his Dictionary. These men sought one prize and gained it. As many years have been spent by thousands of men of equal ability, who sought each a number of prizes and gained none.

A SOUND BODY

Is another of the essentials of success in life which are largely attainable by those who lack their possession. Mental as well as physical accomplishment depends largely upon the condition of the worker's digestion; and the thorough aeration of his blood. This can only be obtained with healthy exercise, which can only be taken by those whose muscles and nerves and wind are in good condition. "Walk twelve miles before speaking and yon'll never break down," says Sydney Smith to an English parliamentary debater. A strong intellect cannot well work with a weak body as its case. Energy without talent will accomplish more than talent without energy. The sharp edge of the woodman's axe avails nothing until the sinewy arm throws it, stroke upon stroke, against the monarchs of the forest. Take the great men of the century, and it will be seen that they combined intellectual force with physical vigor. In England, Brougham, Lyndhurst, Peel, Bright, Gladstone, Palmerston; in America, Webster, Clay, Calhoun, Grant, Sherman, Sheridan, Lincoln —all these were men capable of strong muscular exertion and of standing a prolonged physical as well as mental strain. It is told of Lord Brougham that he once worked six days on a stretch without sleep, slept from Saturday night to Monday morning, and began work again thoroughly refreshed. These men are the conservers as well as the possessors of physical force, and the young man who seeks to retain the "sound mind in a sound body" will remember that it is not so much in the cultivation of additional body strength as in the economy of what he already possesses that the art of physical culture is best applied. The idea used to be that muscularity and rowdyism were natural associates, but people found out that it is possible for a young man to be a good rower, or boxer even, and still be a worthy Christian and admirable member of society, and even that it was difficult for him to be these unless with the employment of manly exercises he brought his physical condition up to the healthy standard. This is merely a recurrence to the old belief of the Greeks, who reverence the muscular body as one of the noble parts of man, and made gymnastics and calisthenics a regular school exercise. Without good health and a sound body, moderate success in life may be painfully possible; with it a place in the front rank may be attained with far greater ease than otherwise.

SELF-RELIANCE.

Among all the mental qualifications which help on to success in life, there is none which is of more importance than self-reliance. If you want a thing well done, do it yourself, says the old saw, and hence comes it that those who rely most upon themselves for the accomplishment of any aim are the ones who do the best work. "Heaven helps those who help themselves," is a well tried maxim, embodying in small compass the results of vast business experience. The spirit of self-help is the root of all genuine growth in the individual; and, exhibited in the lives of many, it constitutes the true source of national vigor and strength. Help from

without is often enfeebling in its effects, but help from within invariably invigorates. Whatever is done *for* men or classes, to a certain extent takes away the stimulus and necessity of doing for themselves; and where men are subjected to over-guidance and over-government, the inevitable tendency is to render them comparatively helpless.

It is energetic individualism which produces the most powerful effect upon the life and actions of others, and really constitutes the best practical education. The determination to be one's own helper is the secret of this individual development and strength. No greater misfortune could befall an ambitious and able young man than a legacy. A story is told of a critic who, after reviewing the promising work of a young artist, praised it, but added: "It is a pity that he can never make a great painter." "And why not?" rejoined his companion. "Because he has ten thousand pounds a year," was the sententious response. When John C. Calhoun was ridiculed by his fellow-students at Yale for his intense application to study, he raised a louder laugh against himself by replying, "I am forced to make the most of my time that I may acquit myself creditably when in Congress," and then, when the laugh was over, adding, "I assure you, if I were not satisfied of my ability to reach Congress in three years, I would at once leave college." Here was self-reliance and self-help. Calhoun knew the difficulties that lay between him and the goal of his ambition, and, while the other students were laughing at him, he was helping himself to overcome them. "The man who dares to think for himself and act independently, does a service to his race," says one of the brightest modern thinkers, and daily experience shows that it is energetic individualism which produces the most powerful effects upon the life and action of others, and really constitutes the best practical education. Schools, academies and colleges give but the merest beginnings of culture in comparison with it. Far more influential is the life-education daily given in our homes, in the streets, behind counters, in workshops, at the loom and the plow, in counting-houses and manufactories, and in the busy haunts of men. This is that finishing instruction as members of society which Schiller designated "the education of the human race," consisting in action, conduct, self-culture, self-control—all that tends to discipline a man truly, and fit him for the proper performance of the duties and business of life—a kind of education not to be learned from books, or acquired by any amount of mere literary training. With his usual weight of words, Bacon observes that "studies teach not their own use; but that is a wisdom without them and above them won by observation"—a remark that holds true of actual life as well as of the cultivation of the intellect itself. For all experience serves to illustrate and enforce the lesson that a man perfects himself by work more than by reading—that it is life rather than literature, action rather than study, and character rather than biography, which tend perpetually to renovate mankind.

ATTENTION TO DETAIL

Is a matter which constitutes much more than half of the battle in many spheres of usefulness, and, the more intellectual the task, the greater the necessity, very frequently, of careful and constant devotion to the little things which help to form it. Sedulous attention and painstaking industry always mark the true worker. The greatest men are not those who "despise the day of small things," but those who improve them the most carefully. Michael Angelo was one day explaining to a visitor at his studio what he had been doing at a statue since his previous visit. "I

have retouched this part—polished that—softened this feature—brought out that muscle—given some expression to this lip, and more energy to that limb." "But these are trifles," remarked the visitor. "It may be so," replied the sculptor, "but recollect that trifles make perfection, and perfection is no trifle." So it was said of Nicholas Poussin, the painter, that the rule of his conduct was, that "whatever was worth doing at all was worth doing well;" and when asked, late in life, by his friend Vigneul de Marville, by what means he had gained so high a reputation among the painters of Italy, Poussin emphatically answered, "Because I have neglected nothing." On the first publication of Wellington's dispatches, one of his friends said to him, on reading the records of his Indian campaigns: "It seems to me, Duke, that your chief business in India was to procure rice and bullocks." "And so it was," replied Wellington, "for, if I had rice and bullocks, I had men; and if I had men I knew I could beat the enemy." All men who have accomplished success in life have been conspicuous for minute attention to detail as well as for general scope and vigor. The great Napoleon was a wonderful example of this. His correspondence shows him arranging for supplies of saddles, directing where cattle could be purchased, advising the procurement of shoes for the infantry, and making suggestions as to various minor details, and complaining because of discovered carelessness in the reports upon matters of detail supplied by others. Lord Brougham, alluding to this quality, said: "The captain who conveyed Napoleon to Elba expressed to me his astonishment at his precise and, as it were, familiar knowledge of all the minute details connected with the ship."

In the face of these examples, no one should come to the conclusion that details are beneath one's notice, or that one is less brilliant in the great things of life because he pays attention to the little things. Of General Thomas it is said that he was careful in all the details of a battle, but, once in the fight, was as "furious and impetuous as Jackson." Attention to details makes a business man, or any other kind of man, "sure that he is right," and then, of course, it only remains for him to "go ahead."

DECISION OF CHARACTER

Is one of the greatest of God's gifts to man, and, as every man has the germ of this quality, it can be cultivated to great advantage. It outstrips even talent and genius in the race for success in life. Thousands and thousands of brilliant men have failed for the want of courage, faith and decision, perishing in the sight of less gifted, but more adventurous competitors. As Sidney Smith says: "We must not stand shivering on the brink and thinking of the cold and the danger, but jump in and scramble through as well as we can."

The old poem says:

"He either fears his fate too much,
Or his deserts are small,
That dares not put it to the touch,
To gain or lose it all."

Decision of character enables one to do the right thing at the right time. Every one knows that

"There is a tide in the affairs of men
Which, taken at the flood, leads on to fortune;"

but not every one has the ability to tell the time of flood, and many, after telling it, have lost its advantages through lack of nerve to embark upon it before the ebb came, and the opportunity was lost. In the

smoke and din of battle, it was the genius of Napoleon, which enabled him to see where one or two bold and rapid movements would secure the advantage; but it was his decision of character which enabled him to profit to the full by the discovery. To be decisive on important occasions, one must keep cool. The Duke of Wellington's calmness never forsook him, even in the most trying emergencies. At sea, one terrible night, the captain of the vessel rushed to the Duke, who was preparing for bed, and announced that the vessel would soon sink. "Then I shall not take off my boots," the imperturbable hero of Waterloo responded as he paused in his preparations for sleep. There is need for this coolness of manner and decision of action in all lines of business. The surgeon, brought face to face with a sudden complication in the case beneath his knife; the lawyer, surprised by the springing of the trap which his wily opponent had prepared for him; the merchant, apprised of a turn in his enterprises that threatens immediate disaster—all are called upon to exercise this quality, and in thousands of cases the dullest man in a company has obtained the prize simply because he grasped it while others were revolving in their minds what they had better do in order to secure it.

NEVER DESPAIR.

Columbus was the son of a weaver, and a weaver himself. Oliver Cromwell was the son of a brewer. Howard an apprentice to a grocer. Benjamin Franklin, a journeyman printer. Claude Lorraine was bred up a pastry cook. Moliére was the son of a tapestry maker. Cervantes served as a common soldier. Homer was a beggar. Demosthenes was the son of a cutler. Terence was a slave. Daniel De Foe was a hosier, and the son of a butcher. Whitefield, son of an inn-keeper. Sir Cloudesley Shovel, rear-admiral of England, was an apprentice to a shoemaker, and afterwards a cabin boy. Bishop Prideaux worked in the kitchen at Exeter College, Oxford. Cardinal Woolsey was the son of a butcher. Ferguson was a shepherd. William Hogarth was but an apprentice to an engraver of pewter pots. Dr. Mountain was the son of a beggar. Virgil, son of a porter. Horace, of a shop-keeper.

TALENT AND FACT.

To excel others is a proof of talent; to know when to conceal superiority is the fruit of tact. Further comparisons of these qualities have been thus set forth by a recent English writer:

Talent is something, but tact everything. Talent is power—tact is skill; talent is weight—tact is momentum; talent knows what to do—tact knows how to do it; talent makes a man respectable—tact will make a man respected; talent is wealth—tact is ready money. For all practical purposes of life, tact carries it against talent—ten to one. Talent makes the world wonder that it gets on no faster—tact excites astonishment that it gets on so fast; and the seeret is that it has no weight to carry; it makes no false steps—it hits the right nail on the head—it loses no time—it takes all hints—and by keeping its eye on the weather-cock, is ready to take advantage of every wind that blows. It has the air of commonplace, aud all the force and powers of genius. It can change sides with hey-presto movement and be at all points of the compass, while talent is ponderously and learnedly shifting a single point. Talent calculates clearly, reasons logically, makes out a case as clear as daylight, utters its oracles with all the weight of justice and reason. Tact refutes without contradicting, puzzles the profound with profundity, and without wit outwits the wise. Setting them together on a race for popu-

larity, pen in hand, and tact will distance talent by half the course. Talent brings to market that which is wanted; tact produces that which is wished for. Talent instructs; tact enlightens. Talent leads where no man follows; tact follows where humor leads. Talent is pleased that it ought to have succeeded; tact is delighted that it has succeeded. Talent toils for a posterity that will never repay it; tact throws away no pains, but catches the drift of the passing hour. Talent builds for eternity, tact on short lease, and gets good interest. Talent is certainly a very fine thing to talk about, a very good thing to be proud of, a very glorious eminence to look down from; but tact is useful, portable, applicable, always marketable; it is the talent of talents, the availableness of resources, the applicability of power, the eye of discrimination, the right hand of intellect.

PARTING COUNSELS.

Keep good company or none. Never be idle. If your hands cannot be usefully employed, attend to the cultivation of your mind. Always speak the truth. Make few promises. Live up to your engagements. Keep your own secrets, if you have any. When you speak to a person look him in the face. Good company and good conversation are the very sinews of virtue. Good character is above all things else. Your character cannot be essentially injured except by your own acts. If one speak evil of you, let your life be such that none will believe him. Drink no kind of intoxicating liquors. Always live, misfortune excepted, within your income. When you retire to bed, think over what you have been doing during the day. Make no haste to be rich if you would prosper. Small and steady gains give competency with tranquility of mind. Never play at any kind of game of chance. Avoid temptation through fear that you may not be able to withstand it. Never run into debt, unless you see a way to get out again. Never borrow if you can possibly avoid it. Never speak evil of any one. Be just before you are generous. Keep yourself innocent if you would be happy. Save when you are young to spend when you are old. Never think that which you do for religion is time or money mispent. Read some portion of your Bible every day. Often think of death, and your accountability to God, your creator.

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Legal Holidays.

New Year's Day ..... January 1st.
Washington's Birthday ..... February 22nd.
Decoration Day ..... May 30th.
Independence Day ..... July 4th.
Thanksgiving Day (Date fixed by President) ..
Christmas Day ..... December 25th.
The first Monday in September (Labor Day) is observed as a holiday in in several States.

Fixed and movable feasts, anniversaries, etc.

Epiphany ..... Jan. 6th.
Septuagesima Sunday ..... Feb., 2nd.
Shrove Sunday ..... Feb., 16th.
Ash Wednesday ..... Feb., 19th.
First Sunday in Lent ..... Feb., 23rd.
Palm Sunday ..... March, 29th.
Good Friday ..... April 3rd.
Easter Sunday ..... April 5th.
Rogation Sunday ..... May 10th.
Ascension Day (Holy Thursday) .. May 14th.
Pentecost (Whit Sunday) .. May 24th.
Trinity Sunday ..... May 31st.
Corpus ~~Sunday~~ Christi ..... June 4th.
First Sunday in Advent .. Nov., 29th.

Note of the Seasons.

Spring Commences ..... March 20th.
Summer " " ..... June 21st.
Autumn " " ..... September 23rd.
Winter " " ..... December 21st.

'VERSITY OF CALIFORNIA '

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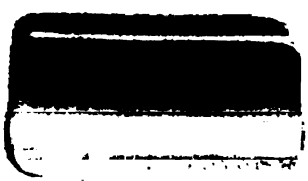
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